



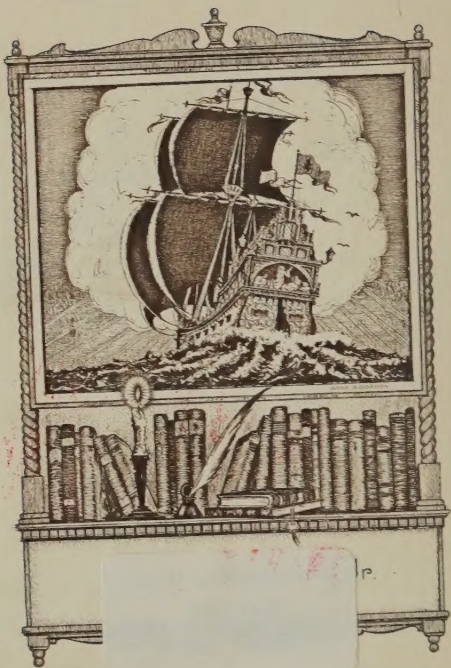
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THE  
REMEDY FOR  
OVERPRODUCTION  
AND UNEMPLOYMENT

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HUGO BILGRAM





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# The Remedy for Overproduction and Unemployment

By HUGO BILGRAM



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## FOREWORD

THE rather unusual treatment of the subject of overproduction presented in this essay was inspired by a competitive contest under the auspices of the Pollak Foundation for Economic Research, Newton, Mass., and White Plains, New York, which had offered a prize for the best adverse criticism of a book entitled *Profits*, by William Trufant Foster and Waddill Catchings. Before the publication of this book the same authors had published *Money* of which *Profits* was a sequel.

The essay is an elaboration of one of the competing contributions entered over the pseudonym "Iconoclast," and although ignored by the judges of the contest, as might have been expected of orthodox economists, it is considered sufficiently meritorious to warrant its publication. It is in fact an arraignment of some of the economic tenets taught by the modern school and shows that the paradoxes so often arising in the economic world are the natural outcrops of the false groundwork upon which some of our institutions are built.





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# THE REMEDY FOR OVERPRODUCTION AND UNEMPLOYMENT

## INTRODUCTION—THE CAUSES OF OVERPRODUCTION

It is the contention of *Profits* that overproduction, that is, accumulation of unsold goods leading to unemployment, is the inevitable result of the fact that in the industrial processes of today the amount of money disbursed among the consumers is inadequate to enable them to buy all the goods regularly supplied to the market. The conditions which are cited in *Profits* as the causes of overproduction may be enumerated under three heads as follows:

A. Whenever producers apply profits (excess of receipts from the sale of goods over their total cost of production) to the production of more goods which they supply to the market;

B. Whenever consumers invest money savings in such a way that they will be used for the production of more goods which are supplied to the market; and

C. Whenever money savings are hoarded or otherwise withheld from the market.

These propositions were received in some economic circles as fallacious and radically opposed to orthodox views. Yet their truth can readily be grasped by the following considerations:

In order to simplify the study of these assertions and to avoid complications, it is assumed in *Profits* that a single corporation controls all industrial operations, in the performance of which it distributes salaries among its organizers and managers, wages among its workmen and interest to investors, derives its raw products directly from land and mines, its power from waterfalls, and so forth. The total cost of producing the goods then equals the sum of the salaries, wages and interest it pays out, and its employees and the investors are the prospective consumers. As an illustration, it may be assumed that the cost of producing goods during the first month amounts to \$1,000,000.

Suppose now that the first month's products are put on the market at prices totalling \$1,200,000 and the corporation, by expanding its operations, expends during the second month all of its income from the sale of its goods.

At the beginning of the second month there are goods valued at \$1,200,000 in the market and only \$1,000,000 of money among the consumers, hence there is a surplus of goods that cannot be bought by the consumers with their first month's income. For buying all the products of the first month during the second, the consumers must expend \$200,000 of their second month's income in

addition to all of their first month's and this accounts for a deficit in their future incomes for buying the goods that will be supplied in the future. This confirms the proposition cited under head A.

To be sure, if the profits of \$200,000 were not expended by the corporation in productive operations, but were retained as reserve capital, this money would still be potential purchasing power, and overproduction would not necessarily follow. The using up of this money profit for the production of more goods is therefore a necessary condition of the demonstration.

Had the corporation marketed its products of the first month without profits, that is, at prices aggregating \$1,000,000, and had the consumers loaned to the corporation \$200,000 out of their incomes of the first month, and were these loans used by the corporation for the production of more goods during the second month, the result would have been the same, that is, the consumers could have bought the first month's goods, worth \$1,000,000, during the second month only by adding \$200,000 of their second month's incomes to those of their first month's, which would have reduced their future purchasing power, leading to overproduction as claimed under head B.

The third cause presented under head C for the inadequate supply of money among consumers to purchase all the goods produced by them, namely the hoarding of money, is obvious. The amount

of money shared out among the consumers, even if no profit item were added to the selling price of the goods, which would then equal the cost of their production, could only equal the value of the goods, and any money withheld from the market would reduce the amount of money available for buying, hence a corresponding amount of goods would remain unsold. But since the hoarded money would still be potential purchasing power, this cause of overproduction could have only a temporary effect, since at some future time even hoarded money will be restored to circulation.

There is obviously no ground for denying or contesting the explanation of overproduction advanced by the authors of *Profits*.

These, however, are not the fundamental causes for the persistent scarcity of money among consumers, and the object of the present treatise is to show that the fundamental cause is the fact that in the supply of one of the most essential factors of commerce, competition is forcibly suppressed without adequate cause.

#### INCONSISTENCY OF TERMS

In discussions of an economic character appearing in books, pamphlets, periodicals and the daily press, the laws of logic are frequently violated by the use of ambiguous words, which though perhaps inevitable in colloquial language, should be strictly avoided in scientific discourses.



Such violation of logic is committed by the inconsistent use of the word Money, which is currently used in the sense of "medium of exchange" and also of "measure of value." This double conception is illogical, for the two ideas are radically different. If the word Money is used to designate "medium of exchange," it cannot consistently be used to designate also "measure of value." Iron has weight, and so have other things; ropes have length, and so have other things; money has value, and so have other things. Nevertheless the unit of weight is not an iron unit, nor is the unit of length a rope unit; and for the same reason the unit of value cannot be a money unit. Value is an attribute of money, and units can only measure attributes of things, like length, weight, value, but not the things themselves. And since the market is the only source of information for the current value of things, it follows that "the value of any one thing is any other thing that can be obtained for it in exchange." The value of a thing can therefore be expressed only in terms of some other valuable thing, be it cattle, as described by Homer, or fur skins, as was practiced in parts of Canada, or silver, or gold, and gold has now been adopted by most countries for this purpose. It is therefore generally understood, whenever value is expressed in terms of dollars, that gold is meant. For this reason the value or price of gold has not varied since 1879, when "specie payment was resumed." The adoption of gold as our unit of value was in-

deed arbitrary, but there are various reasons for preferring gold to other commodities which fully justified the choice.

It is often maintained that the value of gold is variable, but this statement is confusing, being true only if the current unit of value is abandoned and another arbitrary denominator substituted. When discussing the value of a thing, or the variations of values, it is necessary to have in mind a definite unit of value, for the value of a thing expressed in terms of one denominator may rise within the same period within which it falls if expressed in terms of another. For comparing the variable value of things in different historic periods, a "composite" value unit is usually adopted, consisting of a number of commodities in specified quantities and qualities. Such a unit, sometimes figuratively referred to as a "market basket," is adopted by Irving Fisher in his computation of the "index number," measuring the fluctuations of the "price level." It would be advisable, whenever rating values by such a composite unit, to use the phrase "purchasing power" in place of "value."

There is an impression among some men that when value is expressed in terms of dollars, this word needs no further definition. But "dollar" is simply a word consisting of six letters which can have no meaning unless defined, and the accepted definition is "so much gold."

Much confusion in discourses on money would be avoided if the value unit "dollar" were univer-

sally understood to mean 25.8 grains of gold  $9/10$  fine, or 23.22 grains of pure gold. A debt of one hundred dollars would then literally be a debt for 2,322 grains of gold fine, with the tacit understanding that *one hundred dollars' worth of money* will universally be accepted in payment of the debt.

At any rate, our measure of value is not money, but the dollar, defined as stated above. A gold coin is the only type of money that is both a medium of exchange and a measure of value. By destroying its inscription its value to a jeweller remains undiminished. By melting down a silver dollar, its value is reduced to about one-half. Obliterating the inscription on a dollar note destroys its value altogether, for this value depends on a right conveyed to the bearer by a promise stated on its face. So long as there is money in use the value of which depends on stated promises, money cannot be a measure of value.

It is certainly incorrect to say that value is expressed in terms of money, but in terms of dollars, or of gold, is correct.

## THE CIRCULATION OF MONEY

Our industrial system of production is essentially one of cooperation. Various groups of individuals are each employed in the production of one class of goods which are then distributed to those who consume or otherwise utilize them. There

are accordingly innumerable diverging streams of goods radiating from various centers of production to the respective consumers or users, and to compensate these streams there are streams of money in the opposite direction, converging from the consumers toward the centers of production. Still other streams of money, in the nature of salaries, wages, interest and so forth, are disbursed by the producers among those consumers who cooperate in the function of production. Thus the currents of goods and services are intimately related to the currents of money. The latter are comprised under the phrase "circulation of money." In an economic sense these opposite currents compensate each other; they are relative equivalents.

There are, however, other currents of money to which economists rarely, if ever, pay due consideration and which are not in the nature of compensation for currents of goods or services, namely, the flow of money between lenders and borrowers, particularly the flow of loans from and to banks.

Whenever money performs its economic function, it is used in payment for goods or services. Its flow from buyers to sellers compensates a preceding equal flow of goods or services from sellers to buyers. But a lender does not pay money to a borrower for goods delivered. And when a borrower returns a loan, the money is not paid by him for goods received.

It is this reciprocating current of money that is invariably unbalanced, for the stream from bor-

rowers to lenders exceeds the preceding stream from lenders to borrowers by the interest.

It should be observed that it is net interest which is here understood, for a part of the gross interest must be applied to the payment of services incidentally rendered by the lenders in connection with the loan, such as examining the borrowers' solvency, assuming risks and so forth. It is only what is known as net interest that is the disturbing factor requiring closer examination, which should, however, be made with a full recognition of the nature of money.

### THE NATURE OF MONEY

It is remarkable that students of money generally evade an analysis of the money itself. They accept its existence as a matter of course. Many even maintain that it is not wealth except when it exists in the form of coin. They speak of inflation and deflation without having a clear conception of the forces which they thereby attribute to money and which they fail to explain.

But in the course of the present discussion it will be shown that a generic distinction between wealth and money does not exist; in other words, the very essence of money is real wealth.

At any rate, for the purpose of clearing up all mysteries and exposing the hidden features of money, a rigorous analysis of its nature is in order.

There is no doubt that money owes its existence

to a slow process of evolution which may be illustrated as follows:

Suppose that in a primitive village civilization had advanced to a limited specialization of productive processes. Some men had excelled in cultivating the soil for the growth of grain, others in converting grain into flour and still others in baking bread, and had chosen these vocations as their trades.

Suppose further that an agriculturist wanted to obtain bread in exchange for grain, but could not find a baker who was in need of grain. However, he obtained flour from the miller in exchange for grain, and the flour was acceptable to the baker who willingly gave bread for it. Thus, through a compound exchange, with flour as the intermediary, he obtained bread for grain. He was not in need of flour, but it served him as a medium of exchange.

Similar compound exchanges were no doubt made frequently, and some goods were found to be better adapted than others for this purpose. In time the choice centered upon precious metals, and a tacit agreement developed in the community to accept the selected goods as a general medium of exchange. And when governments undertook to control the production of money, the metals were coined to save the trouble of weighing at each exchange.

According to this analysis, money is *a valuable good which by tacit communal agreement is gen-*



*erally accepted as a medium of exchange at its market value*, in the same sense in which in the above illustration the flour was used.

In order to express the value of such money in terms of the adopted value unit, the metal of which coins were made was also chosen for the measure of value. The fact, then, that not only the substance of coins, but also the adopted measure of value, was silver, and later gold, accounts for the confusing and erroneous notion that money is not only a medium of exchange, but also a measure of value, and to attribute this twin function to money in general is a regrettable error of which most economic writers are guilty.

Simultaneous with the development of banking, valid promises to pay a stated number of dollars (or whatever was the name of the value unit) to the bearer came to be accepted in lieu of the metal coins themselves as a medium of exchange, and this is indeed the form in which practically all money of the present day exists. In some forms of money the promise exists by implication, as in subsidiary coins and silver dollars. These are redeemable by law in gold dollars, at least indirectly, and are therefore United States promissory notes impressed upon metal. Money consisting of valid promises, expressed or implied, is known as credit money.

The definition of money stated above actually includes credit money. The *valuable good* is simply replaced by a *valuable right*.

But right here a digression from the line of argument is desirable in order to discuss the economic meaning of Credit, the definition of which, as rendered by various writers, is usually unsatisfactory.

### THE NATURE OF CREDIT

Credit is one of those terms that is apt to mislead, for it is currently used in at least three diverging senses.

The "credit" reported by commercial agencies is the *reputation* of business men for promptly complying with financial obligations. When a bookkeeper gives "credit" on his books to one who has supplied goods, he records a *right* acquired by delivering the goods; while "bank credit" is a *form of money*. Unless this ambiguity is eliminated by selecting one of the three meanings to the exclusion of the others, confusion is unavoidable, and since in economic discourses, and particularly in the phrase "credit money," this word signifies a creditor's right, the term will be used in this sense consistently throughout the present discourse.

The right of a creditor hinges on his right to have the debtor's possessions levied on and sold by process of law for the purpose of paying the debt, if the same is not paid when due. And since normally only the owner has a right to sell, a creditor is in a sense and to a degree joint owner with the

debtor in the latter's possessions. A business man who is indebted to the extent of \$1,000 and possesses property worth \$10,000 is therefore owner of it only to the extent of \$9,000. The difference is owned by the creditor who, however, has not at once the right of possession, just as the owner of a rented dwelling lacks a like right. The right of possession reverts to the latter when the lease expires, and to the creditor when the debt matures. The two cases are substantially parallel. If the debtor then pays the debt, he buys, as it were, the creditor's right. But if not, the creditor can insist on his right by entering suit. Credit, then, is a qualified right of joint ownership in the debtor's possessions to the extent of the debt.

Credit money is frequently defined as a kind of a claim of the holders of money on a part of the future productions of all the people, a definition which is obviously incorrect, for "all the people" never assumed responsibility for the claim imparted by credit money. This subject will be further discussed below.

#### THE VALUE OF CREDIT

When a debt falls due, the value of the creditor's right equals the specified debt, provided the debtor can and will pay. But if the debt remains unpaid and the creditor has his right realized by process of law, the value of the credit may be below par, partly because of the risk that only a portion of

the debt may be collectible, and partly because of the cost and annoyance of a legal collection.

Although debts are usually stated in terms of dollars, that is, in terms of gold, there is as a rule no gold among an insolvent debtor's possessions, hence enough of the debtor's property must be sold to pay the debt. The price at which the security, that is, the wealth subject to seizure and sale for paying the debt, will be sold at a forced sale may be materially below its estimated value. For this reason the estimated value of a debtor's possessions must exceed his debts by a considerable margin before these are considered sound. And even then, the creditor assumes some risk, to insure which a fraction of the gross interest is usually counted as insurance against risk.

When the security for a debt is suspected of being inadequate, the value of the creditor's right may be more or less depreciated.

#### THE NATURE OF CREDIT MONEY

From what has been said it follows that credit money is a form of money in which the valuable good of which cruder forms of money consist is replaced by a right of joint ownership of wealth in possession of certain responsible debtors. A buyer, instead of handing to the seller a payment in the form of a valuable good, a gold coin, turns over to him an acknowledgement of debt that conveys a creditor's right to the seller.

The encumbered portion of a debtor's possessions that is owned by the creditor has, as a rule, its value stated in terms of dollars; the residual share of the debtor alone bears the whole change whenever the value of his possessions changes. The creditor's share is therefore commensurable with gold and can, like gold, be utilized for the substance of money.

In credit money the money tokens and the money things are completely separated. The money things, namely the wealth, the value of which is imparted to the tokens, remains in possession of the debtors whose acknowledgements of debt constitute the securities of the currency. Through the money tokens, be they bank notes or bank checks, the ownership of the money things is passed from hand to hand, while the money substance remains undisturbed in possession of the debtors.

The propriety of this conception is confirmed by the analogy supplied by gold certificates. For every dollar's worth of the outstanding certificates there is deposited in the Federal Treasury a dollar's worth of gold, and this gold belongs collectively to the bearers of the certificates. These certificates are therefore a means of making gold payments without actually handling the gold. In the absence of this gold the certificates would be valueless, hence this gold, though lying idle in the treasury, is virtually circulating when gold certificates pass from hand to hand. Obviously, this gold

is as truly part of the money system as though it were bodily circulating and not merely changing ownership.

The same reasoning applies logically to bank notes as well as to deposit currency. Were the wealth possessed by those debtors who signed the commercial paper tendered as security for this currency non-existent, in other words, were the debts described in those evidences uncollectible, the currency itself would be valueless. In the same sense in which the gold fund of the certificates is an essential constituent of the credit money system, the wealth of the banks' debtors is an essential part of the bank and deposit currency systems. It is not "all the people" offering their "future productions" that sustains the claims conveyed by the bank notes and the deposit currency, but only the property of those specific debtors whose acknowledgements of debt are tendered as security for bank debts. These forms of currency, it is true, are in addition insured, the one by the Reserve banks to the extent of forty percent, and the other by the respective deposit banks to the extent of about ten percent. But whenever, in spite of the insurer's margin, a bank becomes insolvent through bad loans, the deposit currency fathered by it loses all or part of its value, showing that "all the people" never assumed responsibility. The wealth of the bank's debtors, to the extent to which this wealth is encumbered by bank debts, is as truly a constituent of the deposit currency system as the



gold in the Federal Treasury is a part of the gold certificate system.

When deposit currency is created by a borrower having his promissory note discounted, the amount of money, but not the wealth of the country, is increased. Previously existing wealth is simply invested with the attribute of mediating exchanges. By this process the encumbered portion of the wealth of the debtor is placed in legal control of the bank to be employed as currency. When so used through a check drawn against the account and sent to a creditor, the recipient of the money becomes joint owner with the debtor in the latter's property to the extent specified on the check. This right of the holder of the money token, the check, is however merged with other similar rights, being directed against the bank and not against the individual debtor.

If a borrower, instead of tendering his own promissory note discounts some one else's note or acceptance, or some other evidence of debt, as security for his loan, it will be the property of the debtor responsible for this debt that is primarily security for the bank loan, and only if this debt cannot be collected when due does the property of the endorser become involved. It will be the property of the initial debtor which is then utilized as a medium of exchange; the property of the bank's borrower is only a secondary, a contingent security, encumbered only as such.

Credit money is accordingly an evidence that

the bearer owns more wealth than he possesses, while those whose property is encumbered by bank debts own less wealth than they possess.

There is now practically no form other than credit money in commercial use, and all credit money in use in the United States can be classed under three heads, namely, government money, bank currency, and deposit currency or bank credit.

Government credit money exists in several forms, such as greenbacks, gold certificates, and so forth.

Bank currency exists in the form of National bank notes, Federal Reserve bank notes and Federal Reserve notes.

Deposit currency consists of bank deposits transferable by check.

### THE VALUE OF MONEY

Recalling the way in which, in our illustration, flour was employed to perform the function of money, it is clear that this crude money was a valuable good, and there is no reason why its value should have been affected when it was put to this use. And when experience led to the use of silver coins, and finally of gold coins, as a generally accepted medium of exchange, the standard coins had a current value equal to the metal contained in them. A gold dollar had the value of 25.8 grains of standard gold, for it consisted of that

amount of the metal. Supply and demand entered as factors of the value problem of the dollar only through their control of the value of the metal gold.

#### THE VALUE OF CREDIT MONEY

It would appear that the same rule should hold good with regard to credit money, namely, that its current value will be equal to the value of the credit of which money consists. So long as this credit is valid and insured, the value of credit currency should equal the terms of the promise, and the promise being in terms of dollars, the value of a dollar's worth of credit money should equal 23.22 grains of pure gold.

But this explanation of the value of credit money was ignored when it was observed that money could be made out of paper. History records many cases of the issue of paper money that was not redeemable. The very fact that it was issued by the state, or at least under its supervision, and was in some instances even accepted in payment of taxes, gave such currency a standing that caused it to pass current, though often at a depreciated value, as manifested by high prices, particularly by an increase in the price of gold. It was then observed that its purchasing power fell still further with every increase of its issue, and this gave rise to the recognition of a theory of the value of money known as the quantity theory.

## THE QUANTITY THEORY

According to this theory the purchasing power of money varies inversely with the quantity of money in use, assuming that other factors which also exert an influence on the value of money remain unchanged.

The premises of this theory are that an increasing demand for money raises its purchasing power, while an increasing supply lowers it, to such an extent that supply and demand of money remain evenly balanced, whatever the amount of money in use. The purchasing power of money being thus governed by supply and demand, like that of all commodities, it is taken for granted that money is valuable because the paper evidences are by law invested with the functions of mediating exchanges and of paying debts. And this led to two alternate inferences regarding the legal declaration that the dollar shall consist of so much gold. The one inference is that this declaration is simply superfluous and that money might as well be issued without any reference to gold, provided the tokens are by law declared legal tender, a theory that has many advocates, among others J. M. Keynes, Gustav Cassel, G. F. Knapp and others, who defend it as insistently as other authorities dispute it. These latter contend that the declaration of the gold contents of the dollar simply fixes the legal value of gold which, accordingly, is by law chained to

that of money. This latter opinion seems to predominate.

There have been offered two distinct proofs for the quantity theory, one mathematical and the other statistical.

The first has been presented by a number of writers, notably by Simon Newcomb, by Irving Fisher and by the authors of *Money* and of *Profits*.

Here follows a brief outline of this proof.

Commerce may be viewed as a flow of goods and services from sellers to buyers, and a compensating flow of money from buyers to sellers, and these two opposite currents, in order to compensate each other, must be equal in value.

With certain qualifications, such as excluding from the commercial current here considered all transactions that are not compensated through money payments, and from the financial flow all those movements of money which are not in the nature of payments for goods and services, like the clearance of checks by banks and movements of money between lenders and borrowers, and also ignoring the effect of the overlapping of the periods of both currents due to deferred payments, the equation cannot be denied.

The commercial traffic within a given period, say one calendar year, equals the sum of all goods sold and services rendered within the year, and to compute the total value of this sum, the quantity of each sale must be multiplied by the net price of the sale, and all these sale values added.

The quantity of any one sale may be denominated by  $q$  and the price by  $p$ , so that  $p \times q$  is its value, and according to common practice in mathematics, the Greek capital letter Sigma may be employed to signify "sum," hence

$$\Sigma q \times p$$

represents the total value of all goods and services sold during the year.

The mean quantity of money in use during the year may be represented by  $M$  and the mean number of times each dollar's worth of currency is used in payment during the year, called the velocity of money circulation, may be represented by  $V$ . Then

$$M \times V$$

represents the sum of payments effected during the year. The equation of exchange is accordingly

$$M \times V = \Sigma q \times p$$

and this equation is employed to prove the quantity theory as follows:

It is postulated that any change in the quantity of money cannot affect the velocity of the circulation of money, which is determined by certain commercial practices, nor can it affect the volume of the commercial traffic, which depends on the condition of trade. Therefore, when the quantity  $M$  of the equation is changed,  $p$  will be the only factor affected, and in order that the equation remain satisfied, the price level must rise or fall



as the quantity of money is increased or reduced.

This line of reasoning can be contested, for the postulate that the volume of traffic that can be compassed does not depend on the quantity of money in use is unreasonable. This postulate could be true only if the quantity theory is assumed to be true; the line of reasoning thus assumes that which it pretends to prove, and this is what is known as "reasoning in a circle."

The equation really states the relation that exists between the quantity of money in use and the volume of commerce that can be paid for by its use at the existing price level, so that if either one of the two quantities were known the other could be found. It might serve to find the least amount of money that must be in circulation to pay for the total traffic in goods and services if the total value of that traffic were known; or if the total quantity of money in use were known, it would reveal the greatest volume of business that might be transacted and paid for during the year. In order to use the equation for demonstrating the quantity theory, an unreasonable postulate must be assumed. There must be attributed to money the mysterious power of automatically adapting its value to the above equation in such a way that the available amount of money will always *just suffice*, being neither too great nor too small, but equal, as indicated by the equation of exchange, to pay for the commercial flow of goods and services, no matter what the volume of commerce and no mat-

ter what the quantity of money in use. In the absence of this condition the two currents, the commercial and the financial, cannot be equal unless either the quantity of money or the volume of trade is adjusted to satisfy the equation. Since the described assumption is totally unwarranted, indeed, since the promoters of this demonstration do not even seem to realize that their proof is founded upon this unjustifiable postulate, their demonstration is untenable.

The only real information that is revealed by the equation is this: In the event of the quantity of money being too small, the commercial flow must adapt itself to the inadequate capacity of the money on hand; in other words, commerce will be forcibly impeded. Unpaid accounts will increase, the collection of overdue accounts will become slow, the number of bankruptcies will increase and the amount of business must adapt itself to the inadequate capacity of the money in circulation. These conditions are known to occur periodically and demonstrate that the two currents are at times out of balance, if not most of the time. Although the demand for money is high, the faculty claimed for it by the promoters of the quantity theory, of being able to adapt itself to a rising demand is not realized. To substantiate this theory, money would have to be credited with sending out feelers all over the country to gather information regarding not only the amount of money in use, but also the amount of business

that is being transacted, and would have to perform a calculation that money cannot perform.

But the mysterious power of money is usually attributed to the interaction of supply and demand, which regulate the value of all commodities, and so why not also that of money? Let us see.

Whenever the quantity of any one good supplied to the market at the current price is too small to meet the demand for it, all would-be buyers cannot be supplied, and among the disappointed buyers there will always be some who would be willing to pay a higher price rather than go without. They will offer it to outbid competing buyers, and the price will go up. On the other hand, when the demand for any one good at the current price is less than the supply, not all goods will be sold; some of the sellers will offer the unsold goods at a lower price, and the price will go down.

It naturally follows that whenever the price of a good rises, the amount demanded at the increased price will fall off and the amount supplied to the market tends to increase. On the other hand, when the price of a good falls, the amount demanded will increase and less of the goods will be supplied. Competition has accordingly the tendency to establish that balance between supply and demand of the goods of the market that tends to adjust production to consumption, and indeed the same balance which the promoters of the quantity theory ascribe to supply and demand of money.

However, those economic forces that tend to

establish this balance of the market are operative only if the right to produce the respective good is free and subject to competition, for if the good is produced under an exclusive right, the producer has the power to dictate the price.

An exclusive right to issue bank currency is indeed conferred to the Reserve banks. Supply and demand could therefore not control the value of money, even if competition were not precluded for another reason.

Credit money consists of acknowledgements of debt, of promises to pay, and an acknowledgement of debt cannot, by any stretch of imagination, be viewed as a commodity the value of which is subject to supply and demand. The attempt, then, to attribute the value of a promise to pay to the influence of supply and demand is contrary to reason. No one would hold that the value of a promissory note depends upon the amount of such notes that have been discounted by the banks of the country, for their value depends exclusively on the number of dollars promised, that is, if the notes are sound. It is therefore not reasonable to assume that those promissory notes that exist in the form of currency and are employed as a medium of exchange follow another economic law as regards their value.

To be sure, if currency does not bear a specific promise of payment, either expressed or implied, or if the promise is given by an insolvent or by an irresponsible issuer, such currency is either

worthless, or, if there is any prospect that the issuer's promise may be complied with, at least in part, at some future time, it may circulate at a reduced value that reflects the expectation of ultimate redemption.

And if in the latter case the issue of currency is increased, its value will naturally fall inversely with the increase of its quantity, just as the depreciated value of the promissory notes of an insolvent debtor would fall upon the discovery of an increased amount of liabilities, to be included in the statement of assets and liabilities.

Whenever such depreciated currency becomes the current medium of exchange, the current unit of value, often referred to as the "unit of account," naturally adapts itself to the depreciated value of the currency, and this accounts for the attending rise of prices. It is deplorable that an authority like Professor Cassel failed to appreciate the real cause of the depreciation of German currency after the World War and exclaimed "Who can now doubt the quantity theory?"

It will be admitted that the supply of money is measured by the amount of money in circulation, and the demand by the value of all the goods offered for sale in the market. This demand is not a mere desire, but a desire accompanied by the offer of goods of equal value in exchange, which renders the demand "effective." And as shown above, the law of supply and demand declares that competition tends to adjust the value of

things so that the amount supplied equals the amount demanded, establishing a balance in the market.

But it has been the contention of this discussion from the very beginning that in relation to money such a balance does not exist. If the quantity theory were true, if the money in use would always adapt its value so that its quantity would suffice to compensate the commerce of the country, there could never be the lack of money which brings about a money crisis, and the record of such crises in the past constitutes a refutation of the theory. The very fact that there are times when consumers have not enough money to buy the goods they have helped to produce shows an inconsistency in the interpretation of the equation of exchange advanced by the advocates of the quantity theory.

These arguments show definitely that the quantity theory is groundless and that the quantity of credit in use, provided it rests on valid credit, can in no wise affect its purchasing power. The frequent references in the press and other publications to "inflation," meaning a rise of the price level resulting from an increase of sound currency, and its alleged harmful effect on prosperity, are visionary and universally misleading. Whenever the value of credit money depreciated from its gold value, whenever the price of gold rose above \$20.67 per ounce, as happened prior to 1879, this depreciation could be traced to the failure of the issuer to

live up to his promise to pay to the bearer so many dollars, 25.8 grains of standard gold each, that is, the credit on which the currency then rested was not valid.

However, it is claimed that the quantity theory is confirmed by facts, as proved by statistics. It is shown by historic records that the price level kept fairly close pace with the quantity of money in use. This fact, however, can be explained as follows:

Whenever new sources of gold—or of silver, when silver was the unit commodity—were discovered, or the mining of these metals was facilitated by new processes, their production was increased, causing both a lowering of their purchasing power and an increase of the volume of money. Hence the increase of money and a diminution of its purchasing power coincided approximately.

On the other hand, since the “resumption of specie payments” in 1879, the value of currency kept accurate, not merely approximate, pace with the purchasing power of gold, even in the face of wide fluctuations in the total volume of money in circulation. In other words, the price of gold remained \$20.67 per ounce, which shows conclusively that not the quantity of money, but the purchasing power of gold governs the purchasing power of money. It would of course not be reasonable to assume that the metal gold is the only commodity the value of which is not subject to



supply and demand, but instead is governed by the quantity of money in use.

This does not mean that the purchasing power of money is not affected by an addition of gold coins to the existing amount of money, or by an addition of credit money that involves an increase of the gold reserve. Such an increase of money is accompanied by a reduction of the stock of gold in the market which tends to increase the purchasing power of gold. But this effect is the reverse of that which would follow were the quantity theory true.

This simply confirms the fact that the quantity theory is an illusion. It is just because the metal gold is subject to the same economic forces as every other good that the variations in the price level observed since the resumption of specie payment were due to relative changes in the purchasing power of gold. The only possible remedy for these variations would be the adoption of a composite value unit, as advocated by Irving Fisher, provided the use of this unit would prove practicable. Until then we might as well retain the gold unit, for its harm is far less than is often maintained.

In this connection it may be noted that by his advocacy of the "compensated dollar" Professor Fisher discards the quantity theory in favor of the bullion or commodity theory, according to which credit money owes its value to that commodity in which it is redeemable. The two opposing theories of the value of money can hardly be reconciled.

## THE PARADOX OF OVERPRODUCTION

An overproduction of goods, including those goods that are used as a medium of exchange, is logically impossible. The total value of goods supplied to the market always equals the total effective demand for goods.

Overproduction is one of the baffling economic paradoxes, insofar as it is supposed to be the cause of unemployment, particularly of the very workers whose labor contributed to the production of those goods. How a surfeit of wealth can cause a lack of food and comforts is difficult to explain. And apart from this obvious contradiction, if by overproduction is meant an excess of the supply of goods in general over the demand for goods, such is logically inconceivable, for, as will be shown presently, the sum of goods supplied to the market actually constitutes the total effective demand, if all goods supplied and all goods demanded are considered.

Nobody supplies goods to a market with the object of giving them away. Every supplier expects to receive in exchange other goods of equal value, and this expectation constitutes an equal demand for other goods. And by "demand" is not meant merely a desire, but a desire accompanied by money or its equivalent. Thus demand is always attended by an equal supply, and supply by an equal demand. The total supply of a market therefore

constitutes an equal demand upon the market.

According to the preceding analysis money is a good (gold) or its equivalent (so many dollars' worth of some debtor's possessions), although usually not acquired for consumption or utilization, just as the flour of our illustration was not acquired for consumption by the grower of grain; but nevertheless it is a good that is valuable because it is desired as such by some men. If it were not a valuable good, it could not have any value. The value of a good is not usually determined by what everybody is willing to give for it, but by what the highest bidders of the market offer. Money, then, is a valuable good employed as a medium of exchange and is economically homogeneous with other goods of the market. Every sale is a barter, an exchange of one good for other goods that are employed as money. The equation of the total supply of goods and the total demand for goods is accordingly always perfect, provided money is viewed as a good, as it should be, and its total supply and total demand are included. Every excess of the supply over the demand of goods that are not money is balanced by a short supply of goods that are employed as money. Only an insufficient supply of money can account for an excess of supply over demand of goods that are not money. Overproduction is conceivable only as respects goods that are not money.

Since the transcription of valid "promises to pay" into currency is controlled by law, overpro-

duction, so-called, is traceable to legal but not to economic obstructions, and these obstructions are justified only by the dread of "inflation," a fear which has been shown to be groundless.

### THE SCARCITY OF MONEY

That consumers are now suffering from a dearth of money and that accordingly the effective demand for the goods that have been produced is inadequate for buying them has been referred to before. But that producers suffer likewise from an insufficient supply of money is manifested by numerous experiences.

Thus it is observed that keen competition exists almost exclusively among sellers of goods, and only in rare instances among buyers. Competition is an effort of two or more parties to secure a trade by the offer of the most favorable terms, and can therefore assume the nature of a conflict only in the measure in which the object of competition is inadequate to satisfy all competitors. In a state of "overproduction" the supply of goods other than money exceeds the effective demand, hence buyers have as a rule no cause for competing against other buyers. But that which is desired and expected by sellers of goods is money, the inevitable intermediary in the process of exchange, and it is the scarcity of this medium that imparts a bellicose character to competition among sellers of goods.

Another evidence is presented by our experience that "overproduction" is in a measure relieved by the imposition of import duties. The object of these is not to hamper commerce, but only to discourage those exchanges in which money is given for goods, and to encourage those in which goods are given for money. This clearly shows a predominating demand for the medium of exchange, in short, a scarcity of money among producers.

Perhaps the most striking evidence is presented by the interminable series of bankruptcies among producers, of which only a small proportion can be ascribed to inefficiency or fraud. The law that releases a bankrupt of all remaining liabilities after complying with its provisions is a telling proof that most bankruptcies are attributable to a lack of money among producers.

All this naturally leads up to the question of why we are not supplied with an adequate amount of this medium. The usual reply is that an increase of money would lead to inflation, but this retort has been sufficiently answered.

### THE PRODUCTION OF MONEY

As stated before, there are three forms of credit money in use in the United States, and each form has its own mode of producing and circulating.

*Government credit currency* is printed or coined by the Federal government and is passed into circulation for the most part through the regular

channels of trade. Its amount is limited by law. It cannot therefore adapt itself to the needs of commerce.

The bulk of *deposit currency* is created by the joint acts of banks and borrowers by a process described in *Profits* as follows:

“Usually the banks lend the money by simply crediting the bank accounts of borrowers. Thus, when a man borrows \$10,000, the bank simply writes on its books, to the credit of the borrower, the sum of \$10,000, minus the discount; and the total volume of bank credit of the country is thereby *increased* by that amount. When the man pays the loan, the total volume is *decreased* by \$10,000.” (*Profits*, p. 308.)

The term “bank credit” currently used to designate this form of money is a misnomer, which some writers have lately replaced by the more appropriate term “deposit currency.” It is true, this money is secured by the credit of the banks, or, to speak more correctly, by their assets, but these assets consist principally of discounted commercial paper, and hence the security of the deposit currency consists in the last analysis of the wealth pledged by the banks’ debtors for their loans, through the right conferred to the banks by promissory notes or endorsed acknowledgements of debt. The bank reserve required by law is the only contribution of value by the banks in the

process of creating deposit currency. It is the risk margin or insurance fund. Since depositors, as creditors, are secured by the assets of the bank, which consists principally of the borrowers' or some other debtors' possessions, these possessions, to the extent of their encumbrance, are virtually owned by the bank's depositors.

It might appear at first sight that the plan of creating deposit currency would offer a means for indefinitely expanding the quantity of this form of credit money. This is not the case, however, since the law requires the banks to retain a reserve equal to a specified, though not uniform, fraction of their loans and forbids an increase of loans when the reserve falls below this rate. And the banks are usually loaned up to about this limit.

The bank reserves are derived from the currency in use, hence that portion of it which the banks succeed in holding is obviously limited. For this reason deposit currency cannot be increased without limit. But nevertheless it can legitimately rise and has risen to about five times the sum of all other forms of currency combined.

Deposit currency is circulated whenever a depositor draws checks against his account and makes payments with it.

*Bank currency* was formerly issued by the National banks, but since the organization of the Federal Reserve banks the latter have the exclusive right of issue. The process of this issue is as follows:



The notes are printed by the government and are then blanks which are converted into currency by the process of issue. In this process they are virtually loaned without interest to the Reserve banks who in return put in control of the government as security an equal amount of rediscounted approved commercial paper.

With these notes the Reserve banks rediscount commercial paper previously discounted by their member banks, and the latter launch them into circulation by cashing checks. Whenever a check is cashed by a bank, bank currency is given in exchange for deposit currency. The volume of deposit currency is reduced, while bank currency is put into circulation in its stead.

The holders of Federal Reserve currency are creditors to the extent of the notes. But who are the debtors? Creditors are not conceivable in the absence of debtors for the same amount. The process of creating bank notes must therefore be attended by the addition of debts corresponding to the debts already sustaining the value of the Reserve currency outstanding.

Analyzing the creation of this currency from an *economic* standpoint, it appears that the newly added debtors for the full amount of the new notes are the signers of those evidences of debt that are tendered as security for the currency, and the possessions of these debtors constitute the pledges the value of which, to the extent of the encumbrance involved, is imparted to the newly created cur-

rency. This seems to indicate that those debtors are really the principals in the process of issuing bank notes, and that the function of the Federal Reserve banks is simply that of insuring these debts and acting as agents for their clients in redeeming the currency in gold whenever redemption is demanded. The amount to which the Reserve banks are held responsible under present laws as insurers and as contributors of value needed in the process is only forty percent of the value of the currency issued, and can therefore be nothing more than an insurance margin.

This view does not agree with the conception usually entertained, but when the principle of credit is understood as outlined before, no other conclusion is tenable. It is true that from the standpoint of *law* the current view is correct. The Reserve banks are the masters, while those who supply the commercial paper and tender the wealth the value of which is imparted to the notes, are merely pawns.

Nominally the government is the debtor, as appears from the declaration: "The United States of America will Pay to the Bearer on Demand so many Dollars." But the government does not contract a debt in the process of the issue of the notes and cannot therefore be involved as a debtor. The simple explanation is that it goes surety for the real debtors, vouching for the notes' validity. It is justified in doing so, for it has control of the acknowledgements of debt that are tendered as

security for the currency by the Reserve banks, and it holds these banks to strict account as insurers.

Regarding deposit currency, the amount that can be issued under existing laws depends, as has been shown before, on that portion of the circulating currency which banks can acquire and hold as reserve. Naturally, only a portion of the currency in use can be so held by banks.

It is now clear that an increase of deposit currency, to supply the increasing demand for money, is strictly contingent on an increased issue of Reserve currency, which is the only elastic currency available, at least to State banks (the bank reserve of National banks is by law confined to currency issued by the United States) for an increase of legal reserve through which they are placed in a position to increase their deposit currency.

#### DISCOUNT DEBTS

Upon reviewing the process by which deposit currency is created and circulated and exchanged for bank notes, it will be noted that such currency can be put into circulation only by a process of borrowing.

The indebtedness of the business men of the country to the banks, which results from the process of creating and circulating deposit currency, and incidentally also bank currency, equals

initially the amount of currency so issued, and this embraces the greater portion of the money in use. For distinguishing this form of debts from those incurred by commercial transactions, I propose to call the one "discount debts," that is, debts incurred by the process of issuing deposit currency, and the other "business debts," that is, debts incurred by business transactions.

It will also be observed that no portion of the discount debts can be redeemed except by taking currency out of circulation, thereby reducing the amount of money in use. And since business cannot be transacted without a medium of exchange, these debts are virtually "irredeemable." Individual borrowers may succeed in paying off their portion of these debts, but unless others increase theirs, the amount of money in use will be permanently reduced, which it is impossible to permit in view of the continually increasing need for money as population increases.

But this is not all. Those who by their joint acts with the banks have created this currency by going into debt, must pay interest or discount on it, and since this interest cannot be paid in products of labor, but must be paid in money, this money must be taken out of circulation, and the amount of money in use will be subject to a continual shrinkage unless the money so withdrawn is again restored to circulation.

However, this money, or most of it, is being returned, some of it through the regular channels

of trade, but a large portion will be offered for loan and will be loaned into circulation. And the last named method involves an increase of the discount debts, which increase has also the characteristic that no portion of it can be redeemed without an equal reduction of the amount of money in use. The net result is an irresistible, though slow, increase of these debts.

This process has been in operation since the birth of the present system of deposit banking, and for this reason the sum total of the discount debts now materially exceeds the amount of money in use, and the unbalanced circulation of money still grows, indeed more rapidly than ever before. Although the yearly increase of these debts may seem comparatively small and therefore negligible, the debts increase unremittingly, and at that in a geometrical ratio, so that the ultimate result cannot fail to spell industrial disaster. And interest on money is the factor that makes these debts grow so overwhelmingly.

## INTEREST THEORIES

Various theories have been advanced to account for the interest-yielding power of capital, but not one of them is universally accepted. However, with the exception of the exploitation theory by Karl Marx, they can all be assigned to two classes, the productivity and the abstinence theories, the latter including Boehm-Bawerk's Agio theory.

And all these agree in one respect, that the garnering of interest must be preceded by an excess of production over consumption, by *saving*, on the part of the claimant for interest, or of others for him, usually his predecessors. Otherwise a claim for interest cannot arise. Economic writers thus virtually agree that saving is that which initiates any claim to interest.

The mere reference to saving does not, however, explain how interest accrues. The owner of saved wealth must make some sacrifice in return for interest, which cannot consist in sacrificing the savings, but only the advantages that can be derived from them, and this sacrifice has been described by Boehm-Bawerk as consisting in an exchange of present for future wealth, involving abstinence from its use.

#### PERPLEXING QUESTIONS

As previously explained, credit money—and there is now practically no other form of money in use—consists of transcripts of acknowledgements of debt which impart to the bearer a right of joint ownership of the wealth that is in possession of certain responsible debtors, evidences that are accepted by common consent and legal sanction as a medium of exchange. Credit is the principle by which debtors impart a specific portion of the value of their wealth to credit instruments without the surrender of the wealth involved. The debtors

retain it and utilize it as though they were the exclusive owners, although the encumbered portion of its value is no longer owned by them but is transferred to the holders of the credit instruments, and it is these credit instruments that are utilized as a medium of exchange after their transcription into the form of currency.

It follows that if a producer of goods sells them, the money he receives is only an acknowledgement of debt which serves as a receipt for the goods sold, a receipt which, owing to communal consent, imparts to him a right to receive in exchange other goods that he may select from among the goods offered in the market for sale. Having produced goods, he delivered them to the buyer who uses them as his property.

During the interval between his delivery of the goods he sold and the purchase of other goods with the money acquired by the sale, the seller of the goods is in possession only of paper evidences, or, indeed, only of a call claim upon his bank, and is therefore a creditor, a lender of his savings, having made what amounts to a call loan of goods.

According to the spirit of any one of the modern interest theories he is entitled to interest during that interval. Why does he not receive, or even expect to receive any interest for this call loan?

Suppose he has no immediate need for the money, and a friend asks him for its loan, to which he consents. He therefore hands him the money



in exchange for an acknowledgement of debt. But now, as a lender of money, he claims interest for the loan, and the borrower pays it willingly.

The lender of the money did not advance to the borrower his savings, for he cannot deliver them a second time; nor did he deliver to him any other wealth. He lent him the money tokens consisting of promises to pay, which he acquired by "selling" his productions and these tokens are that which he loaned in exchange for a promise to pay executed by the borrower. He only gave promises to pay in exchange for a promise to pay. What is it that the borrower pays interest for?

To be sure, some risk usually attends the borrower's promise, and this risk should be covered by the payment of insurance. But this item is generally a small fraction of the interest paid by the borrower. It is the net interest which is in question here.

Moreover, the borrower can obtain for the money any kind of goods from among those that are for sale in the market, goods that he may need in his business, goods that he can obtain only in exchange for money; and, more likely than not, he may consider this attribute of the money worth the interest he pays. But why does he pay this interest to the lender of the money which is only a promise to pay? It was not the lender who bestowed this attribute upon the promises to pay that are employed as money.

As a matter of fact, the current interpretations,

or rather misinterpretations of the various interest theories, accord to money, as though it were self-evident, the right to interest; but in view of the fact that the money lent is only a promise to pay so many dollars to bearer, the theories which explain interest on saved wealth cannot by any stretch of reason be applied to credit money which consists only of promises. The substance of money, the result of saving, is not transferred when money is loaned. Boehm-Bawerk's postulate that money is "present wealth" is evidently a mistake, for an acknowledgement of debt, a promise to pay, is "future wealth" according to his own definition. Nor can the facility with which it is possible to obtain present wealth in exchange for it turn credit money into present wealth, for this facility results from the willingness of merchants to accept the money as a medium of exchange, the willingness to give actual wealth for mere evidences of debt which they can as a rule utilize only at some future time, the willingness to lose interest on their savings while they remain possessors of the money. If "saving" is the criterion for the right to interest, the sellers of goods obviously sacrifice the advantage which present goods have over future goods for the time during which they remain in possession of the money. This is tersely expressed by Newcomb when he says:

"Every man feels that he is losing possible interest on his money by keeping it and there-

fore tries to pay it out for something as soon as he advantageously can." (*Principles of Political Economy*, by Simon Newcomb.)

Considering that every portion of the total amount of money in use is held by somebody, the total loss here described equals the interest on the total volume of money in use, which is by no means a negligible quantity.

Another discrepancy between theory and practice is revealed when we seek to learn how newly created money acquires its interest-commanding power.

Let us begin with a study of the process by which deposit currency is created.

An applicant offers his bank a promissory note for discount. After his responsibility is scrutinized and found satisfactory, the discounted amount of the note is credited to the borrower on the books of the bank, and the deposit thus credited to him is held subject to check. The bank acquires the discount or interest. But how did the bank earn it? Wherein lies its surrender of savings, its sacrifice of present in exchange for future wealth?

If any saved wealth is involved in the transaction it is the wealth of the borrower that is subject to seizure and sale in the event of the loan remaining unpaid when due, the encumbrance of which has been transferred to the borrower's note by his signature, and thence to the deposit that was

credited to him. But since the borrower does not surrender this wealth, but retains and uses it, he cannot be credited with a surrender of savings, nor with giving present in exchange for future wealth.

Since part of the value of the debtor's possessions has thus been bestowed upon the newly created deposit currency, there is no need for the bank to surrender any savings for the purpose of imparting value to it, nor does it do so. It is the holders of the money, and not the banks, who, so long as they keep it in their possession, forego, as we have seen, the interest to which they are entitled for their sacrifice of present in exchange for future wealth.

It thus appears that the banks simply appropriate the interest without earning it, well knowing that the possessors of the money will not claim it, and even if they did, could not collect it on account of the practical impossibility of making the distribution.

It is true that the banks are required by law to maintain a reserve on their loans, which is a contribution of present wealth by the banks in the process of creating the new currency. But this contribution rarely amounts to as much as ten per cent of the loan, and this can accordingly entitle the banks at most to about one-tenth of the interest, all of which they appropriate.

Besides, it should be borne in mind that deposit banks render to their depositors valuable services in clearing their checks, thereby facilitating com-

mercial intercourse, and they render this valuable service free of cost. It is the practice of deposit banks to apply part of their unearned incomes from discounts to cover the expenses incurred by clearing the checks of their depositors; yet it does not seem fair that borrowers alone should bear this cost. It looks too much like robbing Peter to pay Paul. At any rate, it would seem more nearly just to let all depositors share equitably in the cost of the deposit function and check clearance, as will be suggested later.

Let us now apply the same investigation to the creation of bank notes. Present laws relating to the subject differ in a few details from those under which the National bank currency was issued formerly; but it would be too much were we to examine all of sundry systems under which currency is and was issued here and abroad. Since all of them have the same fault, an examination of the Federal Reserve system will suffice.

Under the present laws the notes are printed by the government and virtually loaned without interest to the Reserve banks, who place under government control, as security, an equal amount of approved commercial paper obtained by rediscount from their member banks. The gold reserve required by law is only an insurance margin, and if a margin of forty percent is really necessary to sustain the par value of the notes, the total value required for the issue is one hundred and forty percent, of which the Reserve banks supply forty per-

cent. Their just claim would then be  $40/140$ , or  $2/7$  of the interest which the new currency commands, but the banks acquire the whole of it, as in the case of the deposit currency, although  $5/7$  of it is in justice due to the holders of the notes when in circulation, who willingly submit to the loss of interest, considering it an unavoidable cost in the process of exchanging goods for goods through money.

### THE INTEREST RATE

The incomes of business men who supply the market with staple goods are regulated by competition. If anyone were to attempt to acquire undue profits by raising the price of the goods he supplies beyond the competitive rate, he would lose his trade opportunities to his competitors and his attempt to enrich himself would end in his own undoing.

Competition is, however, absent in the process by which bank notes are produced and circulated, for the Reserve banks have by law the exclusive right to issue currency in exchange for business men's credit instruments. Their incomes arise from rediscounts, and they are not obliged to adapt their incomes to the merits of their services. Indeed, they raise these rates beyond what the traffic will bear, which results in a periodic breakdown of business activity, and then, when business becomes decidedly embarrassed, they reduce their

rates, but only to raise them again as soon as business conditions begin to recover.

The rediscount rates of the Reserve banks govern the interest rate of money generally, for these banks are the only institutions through which the circulation of bank notes, and accordingly also of deposit currency, can be increased, whenever more money is needed. And since new bank currency can be put into circulation only through member banks, these must establish a discount rate that is higher than they are obliged to concede to the Reserve banks, so as to get paid for their services.

An ordinary business man is now obliged to pay a discount rate of six percent. Therefore, if he has an opportunity for work that promises to net him a profit rate of five percent per year, while he has to depend upon bank accommodation, he must abandon the chance. Could he obtain money at four percent he might embrace the opportunity and borrow the money needed. This shows that a high rate of interest reduces the demand for money and accounts for its scarcity and for the lack of work.

The Reserve banks thus virtually control the interest rate as well as the amount of money in use, through the rate of their rediscounts.

#### THE CYCLE OF BUSINESS ACTIVITY

In discussing the equation of commercial and monetary currents, an impediment to business



activity was traced to a scarcity of currency, but it did not appear why this impediment should manifest itself in wave-like cycles.

This feature results from what is known as economic inertia, from the inability of business to adapt itself instantly to changing trade conditions. For this reason trade moves in slow pulsations which may be divided into four periods.

The disturbing factor is to be looked for in the unbalanced currents of money, the excess of which causes a slow transfer of money from the market to the banks. As stated before, some of this money is returned to circulation through the purchase of goods offered in the market, while a not inconsiderable portion is loaned into circulation, resulting in an increase of the discount debts.

First Period. The normal market condition is characterized by a comparatively large amount of money in circulation, which nevertheless is not fully adequate to compass the payments for the commercial flow. Business flourishes, and the slow increase of both business and discount debts escapes observation. The comparative abundance of money, though inadequate, is attended by an increasing indebtedness.

Second Period. This process cannot continue forever. The growing business debts, resulting from the persistent excess of the commercial flow of goods over the possible financial flow of money manifests itself in an increase of overdue accounts and an increasing difficulty in making collections.

The increase of discount debts resulting from the return to circulation of that part of the excess of the unbalanced currents which is offered for loans exhausts the ability of the borrowers to provide security for further borrowing, and the borrowing from banks falls off. Instead of being returned to circulation, money accumulates in banks, the discount debts cease to increase, and the money in use shrinks.

Third Period. The reduced amount of money now begins to tell, and some of the business men can no longer comply with their financial obligations. Business failures increase and trade becomes dull on account of the prevailing scarcity of money. Unsold goods accumulate, and those business men who can do so reduce their bank loans, because they can get along with less working capital. The reduction of debts is materially furthered by business failures, as accounts become uncollectible and are written off as loss. This, the period of depression, is characterized by a progressive reduction of debts and a low but nearly stationary volume of money in use.

Fourth Period. The reduced volume of debts in conjunction with low interest rates accounts for a reduced excess of the unbalanced currents, and profits, previously acquired and saved, are spent more freely by the well-to-do than money is withdrawn from circulation by those currents. The resulting return of money to circulation largely takes the form of industrial investments, or re-

organization of existing establishments that suffered from the lack of money. Thus the money in use is gradually increased. Finally the conditions existing at the beginning of the cycle are restored, and the play of forces is repeated.

These four periods pass gradually into the next, so that the features described do not present themselves as sharply as here pictured. But they naturally follow each other as cause and effect. Each period is also marked by other features that are the natural concomitants of the leading conditions, features which I did not consider necessary to enumerate, confining myself to those that are a direct and inevitable result of the unbalanced money currents.

## THE REMEDY

### *Plan One*

The obvious remedy for the calamity that reaches its culmination in the third period consists in subjecting the discount rate for bank loans to competition, and one way of obtaining this result would be to restore to the National banks the right of issue, not, however, on the basis of a limited volume of securities, as was the case formerly, but virtually on the same conditions on which the Reserve banks now exercise this right. The only objection that might be urged against this proposition would be due to the dread of inflation, which is justified only by the quantity theory that was shown to be invalid. An increase of currency

would be the natural result of the measure, attended by a material reduction of interest rates on money loans. While the quantity of sound and insured acknowledgements of debt used as money would be increased, this increase could not in any way react upon the value of any of them. The price level could not rise in consequence of the increase of currency.

There never was put into practice a safer currency than that based upon sound business debts coupled with strict insurance of their redeemability, and this principle should of course be maintained rigidly, so as to safeguard the value of the currency. This is indeed the principle on which deposit currency is founded, and the system of paying accounts with bank checks is an acknowledged success, even though the effective insurance margin on deposit currency is less than ten percent. The suggested plan contains no untried feature.

For assuring freedom of competition, no needless impediment should be placed upon the incorporation of new competing National banks, nor should the right to issue currency conferred upon these banks be subjected to taxation of any kind. And while the rate of reserves on bank loans required by law may be increased, there is no reason for excluding bank currency from the legal reserves.

However, some modifications of the present practice would be advisable, and I desire to discuss them briefly.

Uniformity of the notes would be a desirable simplification, as there would be no reason for differentiating the notes issued by different banks, provided all banks are consolidated in their duty of redeeming the notes in gold when demanded.

To this end all banks of issue should be obligated to join in maintaining an Agency for Redemption. From time to time, say monthly, all banks of issue would be assessed for the maintenance of the Agency in the ratio of the amount of currency issued by each at the time of the assessment.

This Agency might exercise the function of redemption through a procedure in which redemption in coin would be replaced by a sale of gold bullion at the fixed price of \$20.67 per ounce of fine gold, while the needless work of gold coinage might be discontinued. Only those who use gold metal industrially have any legitimate reason for buying gold, and to them gold bullion is as acceptable as gold coin.

However, measures should be taken to guard the gold fund of the Agency against wanton raids, and there could be no reasonable objection to arming the Redemption Agency with the right to demand of any purchaser of gold an affirmed assurance that the gold asked for will be used only in the arts or industries, or for some specific useful purpose, and to refuse to sell gold if such assurance is lacking.

This rule would relieve the Agency from supplying gold for hoarding or for speculating, or even for exporting, if exportation of gold should

be deemed undesirable. It would enable the Agency to perform its function with a comparatively small stock of gold. This measure would of course not forbid the exportation of gold bought in the open market; it would only protect the proposed banking system against an obligation to supply gold to those who, not needing it for home industries, attempt to buy it for frivolous or sinister reasons.

As stated before, the gold reserve of forty per cent now required by law on the issue of Reserve currency is really nothing more than an insurance fund for the securities tendered for the issue of bank notes. It is supposed to be necessary for maintaining the parity of the currency with gold by those who have but an indistinct understanding of the real nature of money. According to insurance experiences, however, this gold reserve could be safely replaced by other values, let us say by an excess of the pledged commercial paper. The law relating to the issue of bank notes need only specify that a security of, say, one hundred and forty per cent, that is, forty per cent in excess of the full value of the currency, be tendered, this security consisting of approved commercial paper. In the event of losses accruing from defections in the securities, a tax could be collected from all issuing agencies in the ratio of the amount issued by each, to cover the losses. The demand for a gold reserve fund could then be dispensed with.

An adequate stock of gold must be held, how-

ever, by the Agency for Redemption, to be replenished whenever necessary. But even for this *redemption fund* it would not be necessary to specify by law a definite rate that must remain on hand, if the following plan were adopted.

Let the banks maintaining the Agency be the judges as to the amount of the stock of gold, and the rules for replenishing it, but provide that if by some misjudgment the stock should be temporarily exhausted, so that the delivery of gold sold must be postponed, obligate the Agency to pay a fine to the disappointed applicants of, say,  $1/25$  percent for every day's delay, provided each suing applicant can prove that his application was legitimate, and that the delay interfered with the operation of his business. Since the fine must really be borne by the member banks, it would be to their interest to insist on maintaining an adequate though not excessive supply of gold.

Under such rules the demand for gold would be freed of the financial demand and reduced to the industrial demand, for which the supply of gold from the mines would as a rule suffice, not counting the enormous stock now in the possession of the Reserve bank. This latter stock of gold might even be acquired by the government and paid for by an issue of special gold certificates, and this fund of gold might also be protected, like the Redemption fund, against wanton withdrawals, and would then constitute a solid background for the Redemption Agency.



The adoption of this plan for redemption would make it possible to issue currency against a very small tender of "present wealth" in exchange for "future wealth," for even the insurance margin would consist of acknowledgements of debt, and the stock of gold needed by the Redemption Agency would be insignificant in comparison to the total issue of currency. The last vestige of a just claim for pure interest on newly issued currency would practically vanish.

The measure suggested would therefore nearly eliminate the item of pure interest from the discount rate, which would then fall to competitive insurance against risk plus cost incurred by the Agency for Redemption, and competition would practically eliminate pure interest from money loans generally. This would be in line with common justice, for money is a medium of exchange that was not invented and patented, but developed by experience extending through centuries. And sound credit money could be issued under laws formulated with this end in view practically without sacrificing any present in exchange for future wealth. In view of these facts there is no economic justification for taxing those who desire to avail themselves of this method of exchange through which the impracticable barter market is turned into the practicable money market. By all rules of justice the cost of using one's wealth through the principle of credit as a medium of exchange should not exceed the competitive cost of the serv-

ices which make this medium available to its users, and under rational management this cost would be almost negligible. Indeed, the practice of paying interest vastly exceeding this cost has been copied from Europe. Our laws are now formulated so as to protect this form of inequitable acquisition, this form of getting richer without effort; and for some reason this form of profiteering is even today protected and defended by our courts of justice, as though it were just.

After the issue of bank note currency is open to competition, under proper rules for protection against abuse, and in consequence currency ceases to command interest exceeding the cost of keeping it in circulation, money can be "invested" only by the purchase of products, and, apart from saving it, that is, holding it to be used at some future time, it can be employed only in its capacity as a medium of exchange.

There is another desirable departure from the present banking laws that may be discussed here. The range of pledges acceptable as security for the issue of bank notes could with propriety be extended, under proper rules for insuring safety, to long term securities, like government bonds, mortgages and even industrial bonds, as this would materially reduce the cost of maintaining bank notes in circulation, and accordingly the discount rates. The proposition that currency should be issued only against short-time, self-liquidating paper in order to remain liquid itself dates from the

time the Reserve bank system was discussed. The National bank notes issued before 1914 were secured by Federal bonds maturing decades after their acceptance as security, and no difficulty was experienced on that score. But the need of self-liquidating securities for currency was a talking point that seemed plausible to those who did not understand the nature of money. As a matter of fact, by the process of issuing money through the transcription of commercial securities into the form of bank currency the most immobile securities—provided they are sound otherwise, and fully insured—are turned into liquid values.

By conferring the function of issuing currency as a monopoly to a limited number of men who are thereby enabled to put any figure on the value of their services, this value cannot be justly determined. Free competition, as suggested, is the only rational method through which it can.

It was intimated before that it seems unjust for deposit banks to cover the cost of clearing the checks of all their depositors only from the excessive discount charges to borrowers. Banks should therefore take measures to obtain an income for defraying this cost from those for whose benefit they perform this work. To this end they should collect fixed charges for each check they clear, or better—since the payor, not the payee, should in equity pay this charge—for each check their depositors draw on them. Competition would soon determine the just rate per check.

*Plan Two*

The reform suggested in the foregoing pages for permitting competition to regulate bank discount rates is not the only plan that may be devised to achieve that end. Since it involves some radical changes in our laws, these changes would no doubt be met by an invulnerable resistance on the part of those who have the ropes in their hands and profit by the existing "social order." The outlook for success would be almost hopeless. But the reform can be effected without resort to legislation if a sufficiently large number of business men can become interested, particularly if they can be convinced of the hopelessness of the present trend of affairs. The plan is presented in such detail as will show its practicability. This does not imply that those details must be followed strictly. Both past and future experiences may point out how to improve them.

Suppose a large number of business men of a town, let us call it Newton, establish a "Credit Exchange" whose object it is to enable the members mutually to cancel their accounts payable against their accounts receivable by a process copied from the system of deposit banking. There is no reason why business men cannot do this in the same way and as well as deposit banks do it now.

The members would deposit with the society securities which would impart a corresponding

amount of credit to each member. These securities would remain the property of their depositors, to be returned to them on demand, provided the credit they impart is not being utilized by them.

The credit thus acquired by the members would entitle them to write "credit checks" of the following tenor:

The Newton Credit Exchange:

Please credit	<i>B. Green</i>	with
<i>One Hundred</i>		00/100 Dollars
and charge to	<i>A. Brown</i>	

With this check A. Brown pays an account of \$100 he may owe to B. Green, both being members of the society, and B. Green, upon depositing this check, will have his current account credited on the books of the Exchange, while A. Brown will be charged with the amount.

Similar checks would be used in making various payments. Every member would send such checks to other members and receive like checks from still others, and in the measure in which the debits and credits of a member would cancel on the books of the Exchange, accounts payable and accounts receivable would have been mutually cancelled without the use of "money."

Were only one such Credit Exchange in existence, the field of its operation would be very limited, since transactions could be effected only among its members. But as other Credit

Exchanges would be established in other towns—or for that matter in the same town—they would affiliate so that members of any one of the affiliated societies would be entitled to send such payments to, or receive such from, the members of any of the Credit Exchanges. The checks would then have to be cleared among the various exchanges, just as bank checks are now cleared among deposit banks. For facilitating the clearance of checks it may be desirable that all affiliated Credit Exchanges have identical by-laws which could be amended only at annual conventions.

The chance of success in establishing such a chain of Credit Exchanges would largely depend upon getting a sufficiently large number of business men interested in the idea. In the beginning the members could not expect to clear more than a small portion of their accounts by this system, but if the practicability of the plan is once demonstrated, a rapid growth can be confidently looked forward to.

As stated before, the object of these societies would be to facilitate commerce among their members by providing a cheap but valid medium for cancelling accounts payable against accounts receivable. They should therefore aim to conduct their business as economically as is reasonably possible. After slowly accumulating a limited safety or insurance fund, they should strive to make their incomes balance their expenses by periodically revising the data for collecting their incomes. The

increased facilities offered to the members for making and receiving payments of business accounts should be the sole inducement held out in soliciting membership.

The following rules may be recommended:

The *securities* deposited by members for the purpose of acquiring "credit" may be such as are generally accepted by deposit banks for loans. They should be carefully scrutinized and the amount of credit granted on them should, for the sake of safety, be below their assessed value. If promissory notes are offered, they should be accompanied by a statement of accounts not more than six months old and should be judged accordingly. They should not be interest bearing, nor should their terms exceed six months, but when matured, may be renewed subject to renewed scrutiny. Bonds, stocks, mortgages, and so forth, should be re-examined every six months for renewed acceptance, and if desired, should carry insurance. As has already been said, they should remain the property of their depositors and not be credited to their current accounts, and their records should be kept so that the accumulated credit grants will always be stated with the last entry of deposits or withdrawals of securities. These can be forfeited only, for example, if after the expiration of their terms the depositor's indebtedness should exceed the credit grant remaining, and the depositor cannot or will not renew his expired credit.

These securities should be stored in fire- and



burglar-proof vaults and returned on demand, if the indebtedness of the depositor will permit the attending reduction of the remaining credit grants.

*Current Accounts.* According to the plan outlined, the current account of a member depositing a credit check will be credited and the payor of the check will be charged with the amount specified. It follows that in the aggregate there will always be members who are indebted to the society and others to whom the society is indebted, and that the sum of all debts so incurred must always equal the sum of all credits.

The process of clearing checks between any two societies requires that the respective societies become members of each other, having the same duties and the same privileges as individual members have.

In entering any item in the current account of any member the accumulated balance of his total credit or debit should always be shown. Also the total balance of credits granted on deposited securities must be shown at the head of his page, and this figure should be changed at once whenever any change of his credit grants occurs. This is important, for should a check be received the entry of which would increase the member's debt beyond the limit marked at the head of his page, the check must be marked "overdraft" and returned to its depositor, just as overdrawn checks are now returned by deposit banks.

*Initiation Fees.* These societies must compete

with the existing deposit banks. It would, therefore, not be reasonable to expect those who might join with no intention of becoming borrowers to pay more than a nominal initiation fee, of, say two or three dollars. These societies could offer to such members an adequate inducement to join, which would consist of enabling them to insist on more prompt collection of accounts receivable, for they could make the acceptance of credit checks contingent on payment within, say, fifteen or twenty days of the date of the invoice. Moreover, they would have a competitive advantage over non-members who cannot accept credit checks but expect cash payments which member firms might anticipate by credit check payments.

But since a Credit Exchange cannot begin operations without the necessary means for acquiring office equipment and paying current expenses for the first two months or so, those members who desire to avail themselves of the society's lending power should pay a liberal initiation fee. If an initial membership of between 500 and 1000 can be expected, an initiation fee of somewhere between \$10 and \$20 may suffice. Circumstances will dictate the rates necessary to start operations.

*Monthly Dues.* To defray current expenses, each society must have a source of continuous income apart from initiation fees, and this income can be obtained only from those members who become indebted to the society. Those members must, therefore, be obligated to pay "monthly

dues" which correspond to discounts or interest payable in the present system of deposit banking, but are expected to be very much lower.

To compute these dues, a "rate of dues" must be established which, multiplied by the amount of indebtedness of each debtor member, will determine the monthly dues he will have to pay.

Since the amount of indebtedness of each member will, as a rule, be a variable quantity, it would seem proper to base these charges on the average indebtedness for the past month. But as this would involve an enormous amount of clerical labor, it is proposed to base the computation of each member's dues on his maximum entry during the past month. This is by no means unfair, for all debtor members would be treated alike, and the saving of labor by this practice would tend to reduce the "rate of dues" to such an extent that all debtor members would be the gainers. Moreover, those who now borrow from deposit banks do not, as a rule, employ the whole amount borrowed, retaining a portion on deposit, although they pay the discount on the whole sum borrowed.

The "rate of dues" may be expressed in terms of one percent. A due rate of .3 percent would then correspond with an annual interest rate of 3.6 percent. It should be subject to a monthly revision, and as soon as this rate is determined at the beginning of each month, it should be posted in the office of the society.

The mode of revision may be as follows:

For the first three months of any newly established society the monthly rate of dues of .4 percent may be adopted, but for the months following it may be subject to the following rule:

The income for the preceding month was either greater or less than the expenditures. The first step would be to find that rate of dues that would have made the income equal to the current expenditures, and to the rate so computed .05 percent may be added. The resulting sum would then be the "rate of dues" for the current month.

The addition of .05 percent would have the object of causing the income slightly to exceed the outgo, in order to accumulate a "safety margin" or surplus for covering unforeseen losses. The aim would be to have this margin increase until it amounts to, say, fifty times the total dues charged to the debtor members during the preceding month—or, if preferred, until the surplus amounts to ten percent of the sum of the debts of the members at the end of the past month. As the surplus rises towards this amount, the monthly addendum item may gradually be reduced from .05 percent to nothing, to be resumed again if the ratio of the surplus should fall below the adopted maximum.

When a debtor member cannot or will not, to the satisfaction of the society's board of directors, renew his securities, as their terms expire, and in consequence his debts come to exceed his credit still in force, his expired securities should be

declared forfeited, and if their sale results in a loss that cannot be covered by his unexpired securities, this loss is to be made good from the surplus. It may then become necessary to resume or to increase the monthly addenda to the rate of dues, as the case may be, and if these addenda do not tend to cover the loss in time, they may have to be increased beyond .05 percent monthly.

The dues of the individual members should be charged to their current accounts and credited to "Surplus," from which account the current expenses are to be covered. A statement of the amount of dues so charged to the members could be put among the cancelled checks for which each member is supposed to call monthly, this being the least expensive way of delivering the bills.

*Cash Payments.* It is not likely that the credit entries of each member will balance his debit entries in the long run. Some of the members will receive a larger amount of payments in credit checks than they succeed in paying out, while others will receive less than they can utilize by making payments. In other words, the clearing process is not likely to balance perfectly. Some members will almost continuously be creditors of the society, others will be predominantly debtors. For this reason those members whose credit accounts increase persistently beyond their ability to liquidate them, should be able to have their uncleared balances redeemed in cash, and the

requisite cash must obviously be furnished by those whose debt accounts increase beyond their incomes of credit checks, by the "borrowers."

In order to obtain this cash systematically, all debtor members should be obligated to deposit a certain amount of cash monthly in addition to their credit checks deposited. These deposits are to be credited to their depositors' current accounts, but they would not be entitled to draw bank checks redeemable in cash against them, since these deposits would be viewed as account payments on their accumulating debts.

To compute the amount of cash deposits required monthly of the debtor members, a "cash rate" would be established which, multiplied by the maximum debit balance entry of the preceding month, would determine the sum of cash deposits required of each debtor member during the current month.

On the basis of this cash income the creditor members would have the right to demand cash payments, or redemption, of part of their credit balances, but since they would be expected to keep the society's medium of exchange in circulation to the best of their ability, by paying out credit checks, this demand should be limited, say, to only one call a month, and to an amount not exceeding one-half of their minimum credit balance recorded within one month preceding the date of their demands.

These demands would be paid in the order in

which they are received, and as promptly as cash deposits come in, and, under the rules for the monthly revision of the cash rate described below, all demands should be paid practically within a month from the date of their entry, if not sooner. However, if during the period of waiting the member's minimum credit balance should fall below the one on which the demand for cash was based, the amount of redemption should be lowered to one-half of this minimum of credit balance.

At the beginning of each month a revision of the cash rate should be effected. This rate can be expressed in terms of percent, and may be determined as follows:

Add to the cash demands that remained unpaid at the beginning of the past month the cash demands entered during the same month and compare this sum with the cash payments actually made during this month. Then determine what last month's cash rate should have been to pay all demands entered, add two percent, and let this sum be the cash rate during the current month. The adopted cash rate should, however, never exceed about forty percent.

If a member should be delinquent, at the end of a month, in his cash deposits, he should be charged a fine at the rate of six percent yearly on the delinquent sum for the time of the subsequent delinquency.

Since under the suggested rules the society would have no current cash income, it should seek to deal



exclusively with members, and insist on employees becoming members, so that all its current expenses can be paid with credit checks. But inasmuch as this may not be possible in regard to all its dealings, it should have the right at any time to obtain cash from the fund created by cash payments.

*Semi-Members.* After the rules here outlined are properly elaborated and put into a form in which they will constitute a definite guide to the boards of directors of the affiliated societies for the uniform decision of questions that may arise, there should be no difficulty in bringing the use of business men's credit as a medium of exchange to a successful conclusion without the intervention of deposit banks.

Upon mature consideration, however, one must consider an obstruction not yet taken into account, which might wreck the undertaking, unless means are taken to forestall such an occurrence.

The gist of the plan is to employ the members' credit as a medium of exchange, and if this medium should be led into channels that are closed at the far end, a stagnation of circulation would be unavoidable. This danger actually exists and should be met.

Let us assume that the societies are constituted principally of manufacturers. These are so connected in business that most of their accounts payable go for the raw material used in their respective lines. The payments of the manufacturers of clothes would go principally to the manufacturers

of cloth who in turn expend the bulk of their credit checks for the payment of yarns, and the spinners of yarns would use the greater part of their money for the payment of bills for wool. Everywhere the credit payments would gravitate predominantly towards the producers of the initial raw materials, and in the hands of these the new medium of exchange would accumulate, bringing its circulation to a standstill, for they have only limited chances to keep this money in motion. There the new money would stagnate, and this would react upon the whole system.

How can this result be avoided? What can be done to revive the circulation? Obviously by making it possible to pay wages by its use. Quantities of this money would then be brought to merchants, the final agents for bringing the completed products into the hands of the consumers, who are the first agents for starting money anew on its compensating circuit, and this can be accomplished by inducing workingmen to become members of the credit exchanges.

This would involve the formation of a third class of membership. For the want of a better term they may be called "semi-members." These could obviously not be burdened with the duties of full membership, for they could not utilize the rights which the societies can offer directly to business men. Their initiation fee should be really nominal, perhaps not exceeding \$1.00, and their duties should consist principally in urging their trades-

men to join, so that they could use credit checks to pay for their weekly household supplies. They would then report to their employers what amount of their wages might be paid in credit checks, and in return the employers should agree to redeem in cash any credit payments the employee has been unable to utilize.

There are several ways in which the workingmen may utilize these credit payments. They may deposit with the society the credit checks they receive in part payment of wages and become accustomed to paying their weekly bills with checks; or their tradesmen may send them weekly bills a day before payday to be handed in on payday and covered by the employers' checks, which are then paid to the employees as part of their wages; or the affiliated Credit Exchanges may issue circulating notes in the form of bearer checks which may pass among members as currency; or any other method having the same effect may be employed. Workmen's checks need not be as elaborate as bank checks are now, for in the case of such checks a safety measure guarding against forgery can readily be evolved for proper identification.

However, if the affiliated Credit Exchanges should undertake to issue a currency to circulate among their members, measures should be taken to evade the payment of the annual tax of ten percent on the issue of currency which might be imposed under Section 19 of the act of February 8, 1875. This can be done by printing on each note

the warning: "This certificate of the Affiliated Credit Exchanges of the United States shall be redeemable by any one of the affiliated Credit Exchanges within 30 days after being deposited for collection by a member, at the rate of 25.8 grains of Standard Gold or its conceded equivalent. It shall be received by members on condition that it shall not be used in any transaction with, or passed to, any person not a member of any one of the affiliated Credit Exchanges, and if presented for collection by any person not a member, it shall not be recognized or collectible."

This clause would confine the circulation to the members of the Credit Exchanges. Members might announce their membership on their stationery by a copyrighted symbol or by enclosing with their correspondence or in the envelopes containing their bills a card bearing such a symbol.

Even though it has now been shown that the fight against usury, the cancer of modern civilization, can be carried on by peaceable means alone, the combat will by no means be an easy one, and many obstacles will have to be overcome.

Any call of employers upon their employees for assistance in any undertaking is likely to meet with persistent resistance. Workmen have been taught by practically all reformers that employers are their exploiters, their enemies. Strikes are based on this assumption. The prophet of Socialism, Karl Marx, teaches the same thing. Henry George directs his guns against the land owners. Leaders

of trades unions are not any better informed. There are but few reformers who recognize that employers are co-victims with employees of unjust laws. They, however, are in a measure protected against competitors by those very laws, and they can generally retrieve their losses and saddle them on the employees without being aware that this power is due to the unjust laws themselves, the overthrowal of which is the object of the reform advocated in this book.

There may be some hope, however, of convincing employees of the truth of the argument advanced in the present essay, which will induce them to join their employers in fighting their common enemy entrenched behind the laws of the land. It will be difficult, even though very little effort is called for, and even though, in case of success, they would be the principal gainers. Once they understood what the reform would accomplish, they would abandon strikes for higher wages and better conditions and would demand that their employers join them in the war on usury. Thus they would become the leaders in the struggle for justice. Higher wages would then follow as a result of free competition, with a continually increasing distribution of the good things of life to all.

#### THE LAND QUESTION

The reason why consumers do not receive enough money to buy all of the goods that are

supplied to the market, although these very consumers have contributed the major share if not all the labor requisite to the production of those goods, is now at least in part cleared up. The "producers," in sharing the money they receive from the sale of the goods, are now obliged to distribute it not only among those through whose cooperation the goods were produced, but also among men who either contribute nothing towards production, or obtain a share out of proportion to the merits of their participation in productive efforts, and as a result those to whose efforts the creation of the goods should be credited obtain less than that to which they are equitably entitled. The means through which inequitable acquisition is attained is a forcible suppression of competition in the production of the medium of exchange, which thereby attains the power of commanding excessive interest. And, as a rule, those who obtain the unearned shares are taught that they are justly entitled to these incomes and are therefore not even aware that they obtain more than is due them. They fail to see that in the modern teachings of economics a few flimsy and untrue doctrines are so intimately intertwined with economic truths that but few students even suspect that there is "a nigger in the woodpile."

However, there are other means through which unearned acquisition is effected in a way in which the recipients are not conscious of doing wrong, for the private ownership of land and the exclusive

control of public utilities often become factors in the acquisition of such profits.

In order to understand the process through which this is realized, it is necessary to extend our study to still other fields. Above all, we must learn how the private ownership of land originated.

The right of ownership, not only in land, but particularly in other things, is not a natural right. It is the result of a tacit consent by the members of the community to a person's exclusive possession or control of his property, which is given expression by the command: "Thou shalt not steal." In the absence of such an agreement private ownership could not even be conceived or defined. The rational object of this communal consent is to secure to producers the result of their labor. But inasmuch as land is not a product of labor, private ownership in land cannot be defended on this ground. In Europe it can be traced to the era of feudalism when land was liened to knights who thereby became owners not only of the land, but also of the landless people, the serfs. In the United States the first occupants, as a rule, became the legal owners.

The way in which land may become a tool for acquiring unearned incomes is traced to the fact that different tracts of land have different capacities for affording incomes. This difference may be described by attributing to different parcels of land varying grades of "fertility." The term "fertility,"



however, should not be confined to agricultural, but must be extended to mineral, industrial, mercantile, or, in fact, to any income producing faculty. Thus, in its residential aspect, a lot in the center of a city is to be regarded as more fertile than a similar rural site. It should not be difficult to understand the application of the term "fertile" in this broad sense.

Moreover, the "intensity of cultivation" is a factor in the income-yielding power of land. By applying additional labor to land already in use, its fertility is usually increased. The land supporting a sky-scraper is utilized at a higher degree of cultivation than that on which a three-story building stands.

This feature of land may be taken into account in the economic sense by viewing all land as consisting of a number of superimposed layers or stories which may be utilized consecutively by increasing the amount of labor applied to it with a view of increasing its fertility. But it will be realized that the consecutive layers have usually a fertility that is decreasing at a rapid ratio, for the increasing income is by no means proportionate to the added labor. In other words, the additional layers become rapidly poorer in fertility or revenue-returning capacity. The term "area" or "virtual area" will hereafter be used in this figurative sense.

It thus appears that the "virtual area" of cultivated land can usually be increased by increasing

the intensity of cultivation without increasing its "actual" area; and moreover, so long as there is room for increasing the intensity of cultivation, there are always uncultivated "virtual" areas of land available, even in countries in which all actual areas of land are utilized.

The area of land that is utilized is determined by the demand for its products, and the natural tendency is to utilize the most fertile areas first and leave only the less fertile sections out of use. In densely populated countries the latter consist almost exclusively of those areas that are called into use by increasing the intensity of cultivation. The poorer areas are not utilized until the demand for the products is high enough to call these into use, and it follows that the products derived from the poorest land yet required to supply the demand have a value that is equal to the cost of their production. Moreover, the most advantageous intensity of cultivation is that at which the value of the produce gained by the last addendum of labor equals the cost or value of that labor. Furthermore, all areas that are more fertile than the poorest areas in use yield a product the value of which exceeds the cost or value of the labor required for its production, and this excess—the yearly amount of which is known as the "economic rent of the land"—is due exclusively to the accident that the land which yields it is more fertile than the poorest land in use.

Whenever the user of the land is not its owner,

it is clear that he will pay to the owner its yearly rent for the privilege of using it. Thus the owner of land will acquire the rent whether he utilizes the land himself or rents it to a tenant, and he obtains it not in return for any meritorious service he renders personally, but only because he happens to be the owner. By conferring the ownership of land to the owner, the community conveys to him an unearned advantage.

If we endeavor to learn the source of rent, an impartial inquiry will yield the following answer:

Owing to competition the purchaser of the products of land, be they of agricultural, industrial or commercial nature, must pay a price, not determined by the cost of their production, but by the cost of a like product derived from the poorest land in use. He pays, therefore, a price exceeding the cost of their production, and it is this excess that constitutes the rent of the land. The rent, accordingly, is collected from the consumers or users of the products of land. By their acquiescence to the land laws of the present civilization they confer the rent upon the owners of land as a free gift, not in return for any services rendered by them, but simply because we persist in adhering to the irrational land laws transmitted to us by our predecessors. It is, therefore, improper to charge land owners with wilful exploitation, as many land reformers do, for land owners merely appropriate that which our laws not only permit, but actually assist them to acquire. The

fault lies in our laws and our blind adherence to those laws.

Had our land laws been formulated by men imbued with a desire to be fair to all, and acquainted with the principles above elaborated, private ownership of land would presumably have been granted only on condition of the payment of the economic rent by the owners of land to the community, to be expended for the uniform benefit of all its members. Since the grant of land is equivalent to the gift of the rent, this condition would have equalized right and duty and would therefore be ideal.

It is true, the owners of land are now charged with a tax, but this tax is materially below the rent of the land. It is usually a certain percentage of the assessed value of the landed property.

The value of land is now considered as adapting itself to the annual rent capitalized at the current rate of interest on money loans. It is reasoned that a piece of land will exchange for a sum of money of which the annual income from interest equals the annual rent yielded by the land. However, this statement fails to take into account other factors affecting the value of land, particularly if land is taxed while money loans are not. The income from land then would really equal its rent minus the tax. And even this formula is not yet complete, for the ownership of land affords still another source of profit, in that its value, as a rule, increases

continually, which increase is known as the "un-earned increment."

However, this increment is a very uncertain factor; indeed, in many cases it is for some time negative, that is, the value of land falls, and accordingly, the increment cannot be foretold, but is a factor of speculation. To be sure, this is also true, though in a lesser degree, of the economic rent, and even of the rate of interest—hence, in applying the formula, this uncertainty should be taken into account. The influence of the increment, particularly, can be included in the formula only on the assumption that it can be predicted from past experience. On this assumption the value of land will tend to equal the rent plus the increment minus the land tax, capitalized at the current rate of interest proper.

This formula for determining the value of land will undergo a radical modification after the financial reform advocated above is realized, and money will have lost its power to command an income containing pure interest. When the current rate of interest falls to zero, capitalized values will have risen to infinity; in other words, the recipient of a persistent annuity will normally not sell it for any amount of money. This, however, would not follow in regard to the value of land, since with the rise of land values the taxation of land will be increased in proportion, and a point will soon be reached at which the tax will practically equal rent

plus unearned increment. At this point the rise in the value of land will naturally come to an end, since land will have lost the power of yielding an unearned revenue to its owner. An ideal condition of land ownership will then be established automatically, the tax payable by the owner of land being equal to the unearned income it yields.

This is true theoretically, but in practice there are at least two factors that will cause the actual results to lag far behind the ideal.

The first reason is a possible under-assessment of the land on which taxation is computed. This may be due not only to a persistence of the present practice, or to an imperfect judgment on the part of the assessor, but also to favoritism or even to bribery. To minimize this danger, a plan may be tried of allowing the owners of land to be their own assessors, but providing that if anybody should make a bona fide bid for the land exceeding the value conceded by the owner by, say, fifteen percent, the owner shall be obliged either to raise his assessment to within five percent of the bid, or sell the land to the bidder at the price offered. These margins are suggested as a protection against bids induced by improper motives; and if there exists a sentimental attachment of an owner to the estate, such as if it be an ancient homestead of the family, provisions may be made by law to increase the protective margins. But if the sale of an estate should be enforced as stated, a subsequent reduction of the assessment below the price paid should

be precluded for, let us say, 25 years, except in the event of a sheriff's sale.

This method would no doubt result in assessments that come nearer to proper figures than the mode now in vogue, and would be less expensive to the community.

The second reason why in practice the resulting assessment might prove unsatisfactory is the fact that the value of a landed estate may be increased by labor applied to it. The value of an estate consists for this reason of two parts that result from different economic factors; namely the value of the bare land and the value of the improvements. The one is totally independent of the labor applied to the land, but depends on its nature and on its location. It may be increased by labor applied to the surrounding country, such as the construction of buildings, roads and bridges, or otherwise improving accessibility to markets, industry, and so forth. The value of the bare land is a measure of its fertility, the extent and accessibility of markets, etc., as compared with like attributes of the poorest land in use, and varies inversely with the current rate of interest commanded by money as well as with the rate of land taxation. The value of the improvements on land, on the other hand, depends exclusively on the amount of useful labor applied thereto, insofar as this labor produces persistent useful results.

Of the two values that of the bare land is not created by labor applied to it, but consists of the



sum of past unearned increments. It is, therefore, particularly well adapted to form the basis of taxation. And since after the realization of the suggested financial reform the value of land will rise until the tax equals normal rent plus increment, whatever the rate of land taxation—the value of land rising to a higher level when the rate of taxation is lower—it would at first appear to be immaterial at what rate land were taxed. But since at a low rate of taxation land values would rise to a high level, the unearned increment attending the currency reform would be enormous. A tax rate of from five to six percent would keep this increment down to a reasonable limit, and for this reason this rate of land taxation is recommended. A subsequent change of this rate would only have the effect of changing land values in the inverse ratio, so that the amount of tax would remain the same except during the period of readjustment of values. The rate of land taxation should therefore be made permanent by constitutional amendment instead of allowing it to be a playball for political intrigue.

As regards the value of the improvements on land, their taxation at a rate as high as five or six percent would have the effect of discouraging their production. It would therefore be public policy to tax landed estates in proportion to the value of the bare land and to ignore the value of the improvements in the assessment for taxation. This was, in fact, advocated by Henry George. But although

the origins of the values of the two parts of which the value of landed estates consist are radically different—the one measuring the opportunities presented, the other measuring the tangible and persistent results of labor applied to the land—it is not possible to separate them, that is, to sell the one without the other, nor is it possible to state either part precisely in terms of dollars and cents, even if the sum of both, namely, the selling price of the estate, is given. This fact introduces a serious problem into the matter discussed, for the land owner would have to report in his assessment the estimated value of the land for the purpose of taxation and the selling value of the estate, the difference being the estimated value of the improvements. This return would accordingly be made under the pressure of a temptation to underestimate the value of the land and overestimate the improvements with a view to keeping down the tax and yet discouraging bidders. Some measure would have to be taken by the community to control this evaluation, and since the improvements lend themselves to a more accurate appraisalment, the community might guard itself against imposition by retaining the right of assessing the improvements in some reasonable way on a basis of the estimated cost of replacement with deduction for depreciation. The owner would then state the price at which he is willing to sell the estate, and the difference of the two assessments would be the value of the land on which taxation would be

computed. The problem is a delicate one, but the plan suggested would seem to be its most rational solution.

The same course of reasoning is applicable to the exclusive exercise of public franchises. If the right of such exercise includes the acquisition of unearned incomes, the price for which the owners of it are willing to sell it, like the value of improved real estate, consists of two parts, the one being that of the right to the franchise, while the other is that of the equipment. When the value of the equipment on the one hand and the value presented by the shares of the corporation—the selling value of the enterprise—are known, the difference will be the value of the bare franchise, and if the corporation were taxed in proportion of this difference, in the same way as it was proposed to tax land values, the result would be the same; the unearned income accruing to franchises would be acquired through taxation by the community.

Whenever the development of a public utility offers problems that can be solved only by experience, and a corporation offers to undertake their solution, this corporation is entitled to a corresponding recompense for its accomplishments. Such may be granted to it in a way corresponding to the recompense granted to inventors for the development of their inventions. If a corporation agrees to work out such a problem and will not default by inactivity after acquiring the concession, the community may well agree to defer taxa-

tion for a period of, say, 25 years, counting from the time the agreement of the community is signed. The same time may be extended to existing franchises, counting from the date of the law which puts a time limit on untaxed exclusive rights.

This would be a way of putting a stop to the unjust right of collecting a tribute from the people by men who acquired these rights through injudicial grants by our ancestors, as, for instance, those exercised by the underlying companies of the Philadelphia Rapid Transit Company. The people living now have undoubtedly the right to break what are practically fetters of slavery forged by our forebears. Under any circumstances this proposition is worth very careful consideration.

## CONCLUSION

In the course of this discussion it was shown that unemployment results from the universal inadequacy of the medium of exchange, and this, in turn, is due to the unjustifiable suppression of competition in the issue of currency. The injustice of this measure is concealed behind a misapplication of the law of supply and demand to the value of acknowledgements of debt, in the vain attempt to demonstrate the quantity theory of money; and the notion that the issuers as well as the lenders of money are justly entitled to receive from borrowers interest exceeding the cost of issue

plus insurance on the risk assumed—a world-wide superstition inherited from past ages and rendered almost invincible by the alluring prospect of acquiring riches without effort—is supported only by a misapplication of both the productivity and abstinence theories of interest to money tokens which are neither means of production nor the results of saving, but merely transcripts of acknowledgements of debt having legal sanction for use as a medium of exchange. Lenders of money hand to borrowers only property rights to things, but not the things themselves to which interest theories seek to trace the claim to interest. These things remain in possession of, and in use by, the debtors whose acknowledgements of debt sustain the value of the money tokens, things for the use of which those debtors pay interest, but not to the lenders of these things, for they are not loaned.

In the Introduction there were cited three immediate causes of overproduction, but these require explanation.

Under head A it was asserted that the money disbursed among consumers is inadequate to buy all the goods produced whenever producers apply part of their profits to the production of more goods which they supply to the market.

*Rejoinder.* Producing corporations are artificial persons incapable of rendering any services. They must therefore employ all active agents such as organizers, managers and workmen, and receive the needed capital or savings from investors.

In a state of perfect freedom salaries and wages would tend to adjust themselves to the efficiency of the active agents, and interest to the competitive reluctance to lend savings. A corporation must therefore pay to the investors and to employees competitive interest, salaries and wages, and must sell the goods produced in a competitive market. By competitive compensation is meant a rate for which competitors are willing and able to perform a like service.

When competition is perfectly free, competitors can always be recruited from owners of uninvested and unencumbered wealth and from the army of workers, so that there will always be prospective competitors who can produce goods at the same cost. If among competing producers a difference of organization or of management accounts for a difference in the cost of production, the organizer or the manager responsible for this difference will, in a truly competitive market, obtain in his compensation the entire difference that can be attributed to his skill. Therefore a difference in the cost of production to corporations cannot persist. Corporations as well as individual producers must accordingly adapt the selling price of their goods to normal cost, including the competitive reward for their contribution of personal services, in order to meet competition. This precludes the acquisition of profits by producers, that is to say, of incomes exceeding the value of their personal services, except such unpredictable profits of

chance as alternate in the long run with like losses of chance, and, therefore, eliminate themselves. Apart from this variable item of risk, which at times results in profits, at other times in losses, men would be able to earn incomes only in proportion to the value of the useful services they render. Persistent unearned incomes would come to an end, for in nature there cannot be an effect without a cause. Nor is there any sound economic reason why it should be otherwise.

This reasoning does not tally with our daily experience, and the reason is this:

Owing to the existing scarcity of money practically all savings owned in the form of money and not needed for mediating exchanges, are now invested and therefore not free for further investment. Under present conditions it is therefore not true that prospective competitors who can produce at equal cost can always be recruited. If those who own overproduced goods, or those who possess unencumbered wealth, intend to enter as competitors, they must pledge their goods in the creation of deposit currency, or borrow money on the basis of their material assets, for money is indispensable for assembling active capital from the sundry goods that can be found in the market and for carrying on production and this now involves the payment of interest which as producers they must add to the cost of producing their goods. Prospective competitors are therefore handicapped by being obliged to pay interest, and this enables exist-



ing producers who own their capital and need pay no interest to add a profit item to the selling price of their goods. The fact that profits now accrue to capital is, therefore, not a criterion of conditions that would prevail under rational freedom.

The fact that profits do now accrue to invested capital has misled economic students into the belief that this unearned income is actually earned by it, and this has induced them to invent various illogical, inconclusive, and even fantastic theories in the attempt to account for and justify this really mysterious power.\*

Capital really consists of a selected combination of sundry products of labor that perform an intermediate function in the course of producing goods into the ultimate form in which they are adapted for consumption or final utilization. These intermediate products can be classified as "goods in process of production" and "means of production." The substance of the former will be incorporated in the final or mature product, but that of the latter will not. This is, however, the only difference between the two classes. Both are vehicles of past labor which through the agency of additional labor is matured into a form adaptable for final utilization. In the second class, the "means of production," the substance is wasted in the course of

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\* Refutations of a number of interest theories will be found in Sections 189-214 of *The Cause of Business Depressions*, by Bilgram and Levy, now out of print; a limited number of copies may be obtained from Hugo Bilgram, 1235 Spring Garden St., Philadelphia, Pa., \$2.00.

their utilization by wear, but their utility reappears in the final product in a metamorphosed form. This justifies the practice of producers of adding "depreciation of capital" to the cost of producing things.

The apparent power of capital to yield a revenue, as has been shown above, is due primarily to that forcible suppression of competition that imparts to the medium of exchange the power of yielding an unearned income which must be paid by those who need a medium of exchange, and, secondarily, to the fact that the numerous constituents of active capital cannot be assembled without a medium of exchange. The ignorance and short-sightedness of those who framed our banking laws—or rather those who have practically copied these laws from Europe—are alone responsible for unemployment. This is the only correct "Theory of Interest," and it is up to the suffering people to remove this obstacle to real freedom.

The premises of the first proposition cited in the Introduction under head A lead to overproduction now only because we live in a monopoly-cursed civilization.

The absence of persistent producers' profits in an industrial and commercial community in which unencumbered wealth can readily be utilized as a medium of exchange without the payment of net interest cannot preclude an expansion of business activity. The logical method of increasing either the facilities of production or the quantity of the

output of a corporation, or both, will be to sell more capital stock.

The second proposition cited under head B, namely: The money disbursed to consumers is inadequate to buy all goods produced whenever consumers invest money savings in such a way that they will be employed for producing more goods, is open to the following.

*Rejoinder.* After rational freedom is once established and interest on money loans is free of the factor of net interest, savers of money will have little inducement to invest it as such. The principal chance to invest it is in business enterprises, particularly in capital stocks of corporations, and this field will be far more limited than the present field for investments in savings banks, bonds, mortgages and other money loans as well as in capital stock. Savers of money who do not succeed in buying into business enterprises cannot favorably compete with deposit banks who have experience in estimating in any particular case the rate of risk which will be the main item of the discount rate, the underestimating of which will involve losses. Saved money not invested in business enterprises will therefore for the most part be stored in safe deposit vaults for which a small rent must be paid, or hoarded in homes, which is known to be attended by various risks, or deposited in banks subject to check.

The practice of investing money savings will thus be materially reduced, and it is likely that sav-

ings banks will go out of business or confine themselves to renting fire and burglar proof vaults. Overproduction resulting from the investment of savings by consumers would clearly be far less than now.

The third cause referred to in the Introduction as accounting for overproduction is cash savings or hoarding by producers as well as by consumers.

*Rejoinder.* To be sure, savings may take the form of acquiring goods involving the spending of saved money in the market. Such forms of saving cannot contribute to overproduction. It is only the saving or hoarding of money, either in the proverbial stocking or in the form of bank deposits that accounts for an accumulation of unsold goods in the market, but it is not clear why this should be blamed for, or supposed to lead to, the anomalies attending overproduction, such as unemployment and poverty, except in a monopoly-ridden market.

It is presumed that the money needed for producing is provided by the producers who expand the deposit currency and distribute the money so created among those who cooperate in production, both as active agents and as contributors of saved wealth. Subsequently these recipients of the money, as consumers, acquire the goods in exchange for the money, which is thus returned to the producers who may then either cancel their bank debts or use the money for further production.

Before this money is thus spent by the consumers, it represents claims against the banks, and accordingly—since the principal assets of the banks consist of commercial paper—against the bank's debtors, the producers. It may therefore be viewed as a claim for the unsold goods. If, then, some of the consumers fail to spend all their money, preferring to save some for a "rainy day," it is inevitable that a corresponding amount of goods remains temporarily unsold, until the hoarded money is put to use, which will usually happen sooner or later, since money will be of no use except for purchasing goods or services.

But what of that? Those consumers who have spent all their money and yet covet any of the unsold goods cannot in justice claim them. Nor have the savers of money any right to claim them unless they surrender a corresponding part of their hoardings. The most reasonable way of picturing this condition is to conceive of the possessors of the unsold goods as the custodians of wealth belonging to the holders of the unspent money, having, however, the right to substitute at any time other goods of equal value, or any other wealth adapted to serve as a pledge of their obligations.

When the result of hoarding money is viewed in this light, it is difficult to explain how the resulting overproduction can lead to the calamity of unemployment, or why the production of more goods should come to a partial standstill.

An accumulation of goods in the market, in

addition to those supplied in the regular course of business, is even desirable in order to lay before the customers a supply from which to make their selection.

Suppose industry were started with a clean balance sheet, that is, with no finished goods on hand, but some in course of production ready to be supplied to the market at once, others in due course, and assume that none of the factors enumerated as causes of overproduction were in effect, or in other words, that the goods are sold as rapidly as they are finished. Since money would have been paid to consumers for all the finished and for most of the partly finished goods, these would have in hand more than enough money to buy all the goods as fast as they are supplied to the market. Fierce competition among buyers would be the result. They would have to wait for the goods as they are being finished. There would be no stores of goods from which consumers could select, and the daily marketing would be a perpetual strife.

In order to fill the stores with goods as they are filled now, an enormous amount of overproduction would be necessary. The economic problem would not be: what causes an accumulation of unsold goods? but: what is it that paralyzes industrial activity? And this is not due so much to a lack of money among consumers, as among producers.

The list of causes of overproduction enumerated in the Introduction is not complete. The most

potent factor is that which upsets the balance of the circulation of money, namely, net interest on money loans. It is that which causes a lack of money among producers, and is the principal cause of industrial paralysis.

Our government is supposed to be one of, by, and for the people, and not of, by, and for the bankers, and should, therefore, be ready and willing to give the same assistance to competing banks of the people that it gives to the Reserve banks in the process of transcribing sound and fully insured acknowledgements of debt into currency. It is the producers who are the victims of the present money and profit economy. But by adding the interest they pay for the use of money to the cost of production, and incidentally, to the selling price, they pass this toll on largely to the consumers.

Once the producers are relieved of the unjust toll they now pay for employing their own credit as a medium of exchange; once free competition prevents producers from adding a profit item exceeding the competitive recompense for their own services to the cost of producing goods, this cost will determine their selling prices, and there will no longer exist any economic reason for the entire income from the sale of the goods not being distributed equitably among the consumers. Nor will there be any economic factor tending to bestow on producers, or on anyone else, continuous incomes exceeding the merits of their services.



When unencumbered wealth can be used as currency as readily as the suggested measure will permit, there can be no excuse for an inadequacy of money, and the cause of unemployment will be removed forever.

## APPENDIX

### APOLOGISTS FOR INTEREST

*The theory of the interest commanding power of money and of capital goods advanced in these pages could not stand the test of controversy if the orthodox theories now current were valid. Those theories, however, are now so numerous that it is well nigh impossible in a limited space to controvert all of them, but since the fallacy of many of them has been exposed in other publications, it will suffice here to show why the principal ones are illogical. The arguments appended here are, in part, quoted from The Cause of Business Depressions, by Bilgram and Levy.\**

Money, when loaned, is known to command interest, and experience shows that capital goods employed in production yield an income to their owner. A part of this income is earned by services incidentally rendered by the lender of money or the owner of capital, but another part accrues independent of personal or other services, and even of these profits a portion may result from the factor of chance, alternating in the long run with similar losses. But there is a more or less persistent income yielded by money and capital which accrues to the lender or the owner apart from any service rendered. It is this pure net interest that will be the subject of the present discourse. That the current explanations are largely considered unconvincing may be gathered from the fact that even now new interest theories make their appearance from time to time.

It was during the Reformation that the reformer John Calvin, opposing the orthodox doctrine that usury should be forbidden, defended the interest of money on the ground that with borrowed money may be bought a house or a field from which profits may be derived. Thus he sought to explain the interest commanding power of money by the rent yielding power of a house or a piece of ground.

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\* See footnote on page 93.

Later, in the eighteenth century, Turgot, a French economist, adopted practically the same line of reasoning in the effort to explain the interest yielding power of capital. He observed that capital may be invested either in land or in industrial or commercial pursuits. When invested in land, it returns rent; no one would make industrial or commercial investments if these would not yield profitable returns. He thus attempted to trace the capability of capital goods to yield an income to the like capability of land to return rent.

But this method of reasoning does not clear up the cause of interest. Two things will be exchanged only if both possess certain qualities which the parties to the exchange regard as equivalents. These qualities must be possessed by the things before the parties will even consider an exchange. The exchangeability may therefore be accepted as evidence that the two things have equivalent qualities, but it does not explain why these qualities are inherent in the objects. The money, on the one hand, and the house or field of Calvin, on the other, were exchangeable because each possessed the power of yielding a revenue, but the power of money was not the result of the fact that money was exchangeable for land. The exchangeability was only a manifestation of the fact that both money and land had this power, but did not explain the why and wherefore. The same objection holds good against Turgot's argument, inasmuch as the interchangeability of land and capital goods as an investment was accepted as a premise.

Although this line of reasoning can be contested, it is still the standard argument for justifying the interest commanding power of money. John Stuart Mill elaborates it when he says:

"Money, which is so commonly understood as the synonym of wealth, is more especially the term used to denote it when it is the subject of borrowing. When one person lends to another, as well as when he pays wages or rent to another, what he transfers is not the mere money, but a right to a certain value of the produce of the country to be selected at pleasure, the lender having first bought this right by giving for it a portion of his

capital. What he really lends is so much capital; the money is the mere instrument of transfer. But the capital usually passes from the lender to the receiver through the means either of money, or of an order to receive money, and at any rate it is in money that the capital is computed and estimated. Hence borrowing capital is universally called borrowing money; the loan market is called the money market; those who have their capital disposable for investment on loan are called the monied class; and the equivalent given for the use of capital, in other words, interest, is not only called the interest of money, but by a grosser perversion of terms, the value of money."

Mill here involves his readers in a labyrinth of confusion from which they can extricate themselves only by rejecting his conclusions.

It is manifest from the above quotation that he clearly saw the distinction between money and capital. Money he describes as a credit instrument conveying a right to receive a certain value of the produce of the country, while by capital he cannot mean anything but capital goods. The borrower is assumed to seek capital, not money, which is only the means for obtaining capital. But the conclusion that he pays interest for the use of capital, and not for the use of money, is not borne out by his illustration.

Upon strict analysis the hypothetical case presented by Mill is found to embrace in its scope three independent transactions effected between four different parties, of whom the second is the lender and the third is the borrower of the money.

The first of the four is the initial owner of the money from whom, in the first transaction, the second party, the lender, obtains the money "by giving for it a part of his capital." In the second transaction the second party, the lender, loans this money to the third party, the borrower. Then follows the third transaction in which the borrower uses the money for getting actual capital from the fourth party by way of purchase.

The first transaction is a sale of capital, described by Mill

as an exchange of "a portion of his capital" for a "right to a certain value of the produce of the country to be selected at pleasure." This is clearly a call loan of real capital, inasmuch as the second party can get back "at pleasure," an equivalent of the amount of capital he sold. So long as he refrains from getting it back, he is a *creditor*. Does he receive interest for this call loan? By no means. The certificates he obtained in exchange for his capital are not mere credit instruments; they are money. But being a creditor, who is the debtor? It cannot be the first party to whom he gave "a portion of his capital" in exchange for the money, for, as possessor of the money this first party was a creditor who merely received "a certain value of the produce of the country" when he bought the capital of the second party, the lender. In fact, this debt, merged with all other debts arising from the issue of credit money in general, is covered by the acknowledgements of debt that constitute the security tendered in the process of issuing the credit money. The respective debtors actually pay interest on the debt in the form of discounts, but not to the respective creditors, the bearers of the money. As has been shown in the course of the past discussion, these discount payments are intercepted, but not earned, by the deposit banks. At any rate, the holder of money, that is, of "a right to a certain value," does not receive interest on what is virtually a call loan of capital. The credit instrument he receives is *money*, something for which he can get interest if he lends it out.

According to Mill's account this holder of money does lend it to a third party, the borrower, and receives a promissory note for it. This constitutes the second transaction, which is an exchange, merely, of credit instruments, money on the one hand and the promissory note on the other. No capital goods are transferred. The lender is still a creditor. It is true he no longer possesses a "right to a certain value of the produce of the country to be selected at pleasure," but in its place he has the promissory note of the borrower which conveys a *right to a certain value of the borrower's possessions*, maturing at some future time.

The borrower is now both debtor and creditor; debtor as the maker of the promissory note, and creditor by reason of

possessing "a right to a certain value," the money. But from the moment of this transaction in which no transfer of capital takes place, and which consists merely of an exchange of credit instruments, the borrower pays interest to the lender. The only difference is that the credit instrument which the lender gives is a medium of exchange, the other is not. If, as Mill holds, the interest is paid for the use of capital, and not for the use of money, what capital is it, and whose? It cannot be the capital the lender gave to the first party when he acquired the money.

It is true the borrower ultimately obtains capital from the fourth party when, in the third transaction, he pays money for it. Does he pay interest to the lender of the money for the use of *that* capital? If so, why does he begin to pay it before he receives that capital, and why does he not pay it to this fourth party from whom he gets the actual capital?

The facts of the case cannot reasonably be interpreted otherwise than that the interest is paid for the use of the money as a medium of exchange, and not for the use of capital as a means of production. It is counted from the moment the credit instrument which is money is given in exchange for a credit instrument which is not money, but never from the time when actual capital, which has the capacity of being used in productive processes, is given for money which has no such capacity. It is paid to the man who gives money in exchange for a promissory note, but not to the man who delivers the real capital in exchange for the credit instrument money. The obligation to pay interest manifestly originates in transactions in which credit in the form of money is exchanged for credit instruments that are not money, but never in those transactions in which real wealth, the result of *saving*, is exchanged for credit instruments that have been invested with the money quality. The only reasonable inference is that Mill's conclusions are illogical and that interest is paid for the use of money as a medium of exchange, and not for the use of capital as a means of production.

The fallacy of the idea that capital is transferred from the lender to the borrower through the medium of money is most glaring when money is loaned by a deposit bank in the process

of discounting promissory notes. In this process the money loaned has not been obtained by the deposit bank in exchange for "a portion of its capital," for no capital exceeding the reserve required by law was involved in the transaction. And yet, the bank receives interest on the full amount of the loan. And if it is considered that the difference between a valid evidence of debt which is money and one which is not, is a difference created by law, this conclusion assumes a more serious aspect, inasmuch as it indicates that the interest commanding power of money is created by improper laws and does not result from economic forces.

Money plays no part whatever in the wealth producing processes of industry. Its function is merely that of facilitating exchanges, and there is no reason why an exchange of products of labor should be burdened by the payment of a tribute to anybody. If interest is due for producing, saving, and loaning wealth, it is due him who gives actual wealth in exchange for money, which is only a credit instrument, an acknowledgement of debt. In other words, it should accrue to the possessor of money, which is an evidence that he has given actual wealth, and not to the lender of money. Every attempt to justify interest proper for the loan of money will therefore be a failure.

In criticising Aristotle, who condemns interest on the ground that "all money is in its nature barren," Jeremy Bentham argues that:

"A consideration that did not happen to present itself to that great philosopher, but which, had it happened to present itself, might not have been altogether unworthy of his notice, is, that though a *daric* would not beget another *daric*, any more than it would a ram or an ewe, yet for a *daric* which a man borrowed he might get a ram and a couple of ewes, and that the ewes, were the ram left with them a certain time, would probably not be barren. That then at the end of the year, he would find himself master of his three sheep, together with two, if not three, lambs; and that, if he sold his sheep again to pay back his *daric*, and gave one of his lambs for the use of it in



the meantime, he would be two lambs, or at least one lamb, richer than if he had made no such bargain."

Bentham, in this illustration, concedes on the one hand that money is barren, and implies, on the other, that the income accruing from the vital power of the sheep is in the nature of interest. Yet, we are told that the owner of the sheep sells them for a daric. This assumption is not consistent with the premises, for no one who has a goose that lays golden eggs will give it in exchange for a common goose. From the premises it would follow that the *seller* of the sheep, at the end of the year, would be two lambs, or at least one lamb, poorer than he would have been had he not made that bargain. It cannot be assumed that the seller of the sheep was a fool. There must be some flaw in Bentham's argument, for the sellers of sheep are, as a rule, as shrewd as the buyers. The fault is obviously in one of the premises. The housing, feeding and raising of the sheep and lambs require labor which the seller of the sheep desires to avoid, and without the performance of which the man raising the lambs could not become their owner; and under free competition the value of the accrued lambs would adjust itself to correspond with the value of this labor. The value of the lambs would therefore represent *wages* and not *interest*, and Bentham's logic falls to the ground.

No more conclusive is the theory advanced by Henry George, according to whom:

"Interest springs from the power of increase which the reproductive forces of nature, and the in effect analogous capacity for exchange, give to capital."

In this statement the author refers to forces of nature which are accessible to all those who choose to avail themselves of their benefit, for in another passage he speaks of them as being available at the margin of cultivation. If they were in some way limited and available only on intra-marginal land, the income they render would come under the head of *rent*, not of *interest*. On the other hand, those

forces of nature which are available without hindrance cannot be monopolized, and cannot, therefore, have any value, and having no value, the value of that which is produced by their aid cannot exceed the value of the efforts necessary to utilize the forces. This value is *wages*, but not *rent* or *interest*. It is thus manifest that the theory of interest advanced by Henry George is based upon a confusion of the premises.

In this way all theories by which the interest returns of one class of things are traced to the profit returns of another class of things may be disposed of. But the more modern theories attempt to trace interest yielding power to the properties of the things themselves. Thus the productivity theory of capital ascribes this power of active capital to the fact that the productive capacity of labor is increased by the employment of labor-saving devices. But these attempts, also, when subjected to strict analysis, fail to justify the power of capital to yield profitable returns.

Let us assume that by a newly invented machine the cost of manufacturing hosiery is materially reduced. So long as the inventor holds a patent, he is able, by making such machines and renting them out, to obtain a profit proportionate to the benefit his invention bestows. But this will be changed after the patent expires and the right to make and sell similar machines becomes public property. The manufacturers of hosiery then buy machines instead of renting them, and at first they make a handsome profit, since they need no longer pay royalties for the use of the machines. Finally, however, the lucrative trade of making hosiery attracts other manufacturers, and the increased output of the goods lowers their price so that the consumers of hosiery reap more and more of the benefit of the invention. This process takes place gradually. The profits obtained by the manufacturers through the use of the invention gradually shrink as more machines are brought into use, and the price of their output is reduced. The question now arises, at what point will this process come to an end?

It is obvious that more capital will be invested in such machines so long as the profits that can be derived from their use exceeds the profits which capital otherwise invested usually

brings. So that the increase of those machines will cease when the profits on capital invested in them falls to the current rate of capital returns. If capital otherwise invested did not have the power of yielding an income, the number of these machines would be increased until competition would reduce the income on their use to the level of what other capital yields, namely to nil. We must therefore conclude that capital invested in these labor saving machines continues to yield a profit not because they reduce the cost of production, but because other capital investments afford interest. The productivity theory of interest simply assumes as a premise the very thing which it undertakes to prove, namely that invested capital yields a profit. The question why is not answered.

The endeavor of the French economist Bastiat to explain interest on capital has the same shortcoming. This writer illustrates his argument by introducing to his readers James, who has made a plane which he loans to William for a year to be used in planing planks. At the end of the year the plane is worn out, and William makes a new one which he hands over to James in return for his loan, and with it he gives him a plank to pay for the advantage which the plane afforded.

Whatever it may have been that induced William to agree to pay a plank as interest, an isolated case cannot establish the rule. William would certainly not agree to borrow the plane of James on condition of paying a plank, if John, another carpenter—who needed for his own work a plane that would last him a year, but had made two, because he could make these in less than double the time required to make one—were to offer the loan of his second plane to William on condition of giving back a new and equally good one at the end of the year and only half a plank for the use of the one loaned. Suppose, furthermore, that there were yet others besides John who had more planes than they had immediate use for. It is then quite conceivable that in view of saving the trouble of storing the supernumerary planes and the risk of their shrinking or cracking or of their being stolen, competition will bring down the recompense for lending planes to the point of merely a return of a new plane in place of the

one loaned. The case must evidently be judged by the result of competition, assuming that the lending of planes is a business which some of the plane makers carry on in addition to making and selling planes. So long as capital invested in lending planes brings an income exceeding the returns of capital invested otherwise, the number of lenders will increase, and through competition the hire of planes will come down. On the other hand, when these profits are below the current rate of capital returns in other lines, the plane makers will prefer to sell their planes and to invest the money received in some other way. In the end, the profits from lending planes will adjust themselves to the current rate of profits returned by capital generally.

It is thus apparent that Bastiat's illustration can account for the willingness of William to pay a plank for the loan of the plane only by assuming that capital generally has the power to yield interest; it fails to explain the cause.

Senior attributed to man a reluctance to *save*, a dislike to defer the consumption of things after they have been produced, a dislike to practice abstinence. According to this theory, interest is an inducement to suppress this dislike, just as wages constitute the inducement for men to overcome their dislike to work.

But the weakness of a theory based on a *pain of abstinence* felt by men who enjoy exorbitant incomes—the principal recipients of interest—was recognized by an increasing number of students, so that a re-statement of this theory was found desirable, and this was presented by Boehm-Bawerk in his *Positive Theory of Capital*. This is by far the best interpretation of the abstinence theory, and its refutation shall conclude the present review of interest theories.

This theory may be briefly stated as follows.

"Present goods are, as a rule, worth more than future goods of like kind and number." In this postulate "present goods" include goods ready for immediate consumption, and also money in hand. Among "future goods" are included not only goods and money receivable in the future, but also goods in hand which are not yet adapted for consumption, namely, capital goods.

The difference in the appraisement of present against future

goods results from a series of causes which, though of different natures, exert their influence in the same direction. The first consists of the difference of the relation of demand and supply at different periods. This may be exemplified in the case of a farmer who has lost his crop and needs immediate relief. In such cases it is less hardship to return a greater value in the future than to suffer for the want of a lesser value at present. The second cause adduced is the propensity of man to underrate future pleasure and pain simply because they are remote. The postulate put forth as the third cause is really an elaboration of the first and second causes in their relation to the proposition that "the roundabout ways of capital are fruitful, but long," in the sense that the time intervening between an effort of production and the realization of the utilities resulting from the effort increases with the adoption of more complex, though at the same time more efficient, processes of production. Thus, if an employer has at his disposal, say, one month's labor, in other words, so much capital, he may proceed to employ it with greater or less efficiency, according as he selects a more or less complex system of production. If he wants "present goods" quickly, he obtains less goods from the same amount of capital by the use of simple methods of production than if he chooses a more efficient method yielding finished products after a longer interval. The amount of goods obtainable from a given quantity of capital with a more complex and protracted method of production is, therefore, greater in the end than with a simpler and quicker one.

Upon these propositions Boehm-Bawerk bases his theory of interest. His conclusions are summarized under three heads: the first relating to the subjects of loans and interest on loans; the second to employed capital goods and the returns therefrom; and the third to interest derived from enduring goods.

A loan is viewed as an exchange of present for future goods. The lender gives a present sum of money in exchange for a future sum. But money receivable at a future time being underrated as compared with the same amount in the present, it follows that a future sum of money, in order that it shall have a value equal to the present sum, must be greater in amount. In giving a greater amount of future

money, the borrower gives equivalent for equivalent; and when the future becomes present and the debt becomes due, the debtor pays the greater amount in cancelling the debt. Where the loan is absolutely secure and all charges for risk and supervision are eliminated, the excess of the amount ultimately returned by the borrower over the amount originally advanced by the lender is "interest."

*Means of production*, like machines that wear out and the potential utilities of which are regarded as having entered through a process of economic metamorphosis into the final products, as well as the *goods in course of production*, the immature utilities of which have been matured by labor performed during the final process of production, are in the end embodied, in an assimilated form, in the final product. The latter is therefore an aggregate of those three factors, in their mature and assimilated state. The value of the aggregation is due to its final utility, and the value of each of the components is a corresponding part of the aggregate value of the final product, but these being future values, the present value of capital goods, of the goods in course of production and of labor, are the discounted amounts of those ultimate values. As production progresses, these discounted values grow to full rate, and the increase constitutes the interest that accrues to capital employed in production.

Regarding his cardinal premise that "present goods are, as a rule, worth more than future goods," one can only deplore that Boehm-Bawerk selected for his type of mankind the laggard, a man who will defer to the last moment work which must be done, a man who underrates future pleasure and pain simply because they are remote. This is not a representative of civilized man, but one who is even inferior to those creatures who collect food to sustain themselves through the winter months. The rational man, recognizing the vicissitudes of life, provides "for a rainy day," for possible periods of adversity, particularly for those resulting from sickness and old age, and exhibits his preference of future over present goods by "saving."

The author of this theory is also grossly inconsistent by classing money with "present goods." Even ignoring the fact that now practically all money in use consists of prom-



ises to pay—a characteristic form of “future goods”—and conceding that at the time Boehm-Bawerk wrote his book some money in the form of standard coin was still in use as a medium of exchange, this money was not in a condition to be consumed or otherwise utilized and used up. In the form of gold certificates the coin lying idle in the Federal Treasury performs its mission of mediating exchanges without being used up. Even standard coin is therefore a typical form of “future goods,” and the lending of money cannot be considered the giving of “present” in exchange for “future” goods. The borrower gives his promise to pay in exchange for the banker’s promise to pay; and even if the lender gives coin, that which he gives consists strictly of future goods, of goods not intended nor adapted for consumption.

Just as unacceptable is the postulate that “the roundabout ways of capital are fruitful, but long.” This statement is indeed self-contradictory. A process, to be “fruitful,” must have prolific results; like efforts must yield a greater amount of products. Hence the time of producing a unit must in the average take less time, and production must be more rapid, not long. The manufacturer who expects to sell large quantities of goods will obtain them in a far shorter time by resorting to the most fruitful and roundabout way of production. The delay involved in obtaining first results when employing a more fruitful but roundabout way can only be temporary, for the initial delay will soon be overtaken, the more fruitful way making up rapidly for lost time. It is therefore a mistake to assert that capitalistic methods are long.

All these considerations show that the phenomenon of interest is due to forces other than those adduced by the author of *The Positive Theory of Capital*, or of any of the authors of the modern theories who essay to justify interest, and that the only rational explanation of interest is that it is created unjustifiably by the interference of our legal system with the freedom of competition in the production of the medium of exchange.



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